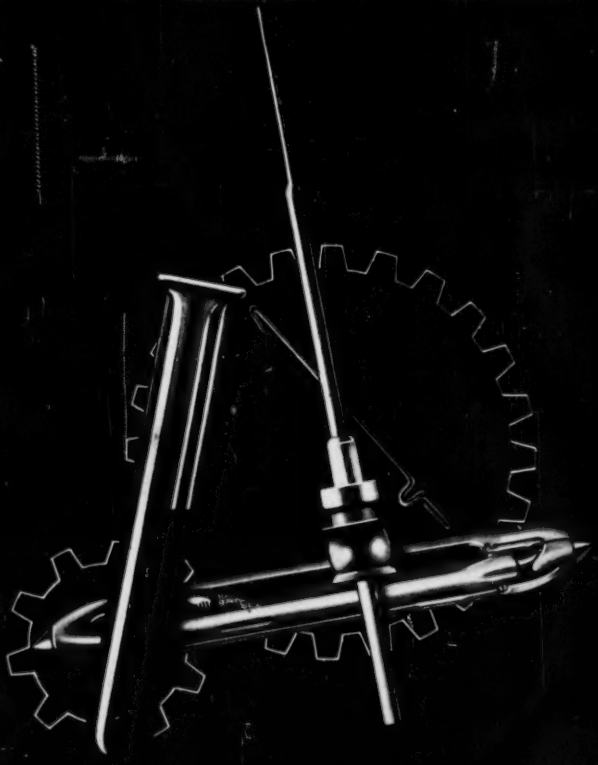
TEXTILE WORLD

A McGraw-Hill Publication



ARTICLES IN THIS ISSUE DISCUSS:

Annual Mill Check-Up Number

This Year's New Equipment and Supplies
Starts on page 110

What Was New at the Greenville Show
Starts on page 136

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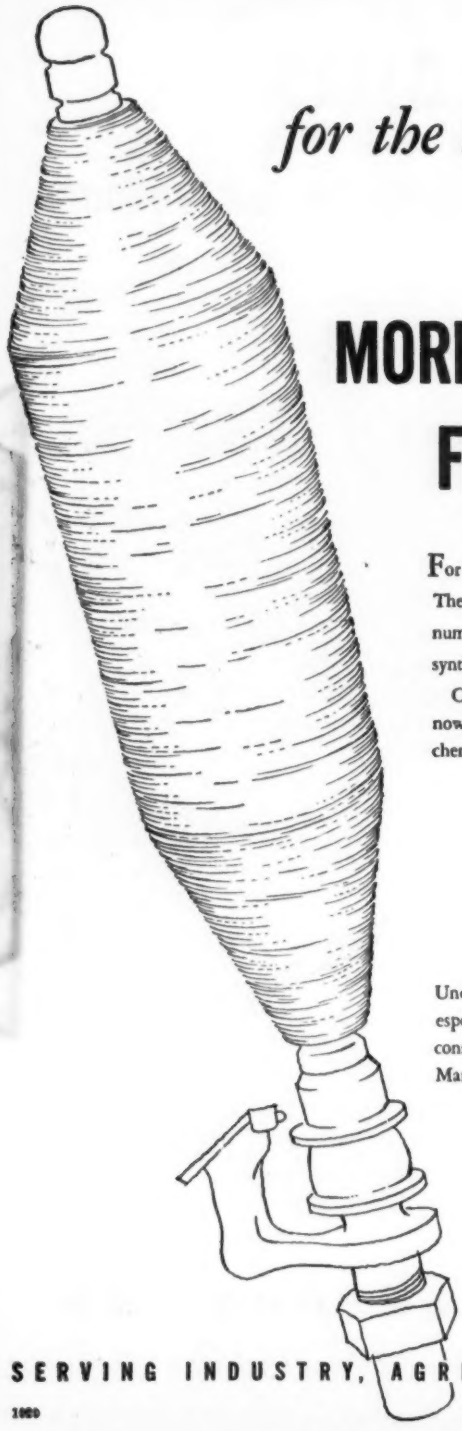

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THE Long-Range VIEW

Are You Upgrading Yourself?

Mills are making tremendous progress in everything physical. Plants, machinery, and working conditions are vastly better than they were ten or twenty years ago. And judging by the new developments in 1952 (reviewed in this issue of TEXTILE WORLD), the pace of improvement shows no signs of slowing down.

However, a source of concern to us is the question: Are mill men upgrading themselves as fast as they're upgrading their mills?

In general, they are better informed, perhaps have better technical training, and have better management tools to help them run their jobs. But when matters are reduced to essentials, the same personality quirks cloud the issues the same as they have always done.

For example, superintendents and overseers in many cases resent technical change. Where an old machine is improved, they accept the change with grace and even enthusiasm. But if a new product comes along from a new company, there's a good chance that the overseer and probably the superintendent will brush it off with, "It's no good for our type of work."

Or take personnel relations by a supervisor. One of the strange things we've run into hundreds of times is the fact that every mill man thinks he's an expert at handling help. We would bet that if each one could answer two questions honestly and in complete secrecy, he would say that he is exceptionally good at handling workers and that his boss is not so good. The answer is that the people under him accept his decisions and laugh at his jokes, and he never knows of the resentment they bury—just as his boss never knows of the resentment he buries.

Or take public relations by top management. Nothing is so indicative of arrogance as a "No comment" in an article in a local newspaper on a subject of community interest. One of the best stories we've ever read about Robert E. Lee was that in his talks with newspaper men he told them only what he wanted them to know; yet they always left thinking that he'd told them everything there was to tell.

Examples could be almost endless. But these three strongly indicate that mill men are not improving their own attitudes as fast as they are improving their mills.

The old bromide that human nature can't be changed is poppycock. The trouble is that everyone wants to change someone else and not himself. When trouble pops up, it does not occur to the management man or the supervisory man that the root of the trouble may be in him; it's the worker, the local newspaper, or the representative of the new firm with a new product that he wishes to get out of his hair.

There is no good reason why mill men cannot upgrade themselves as well as their mills. The first requirement is that they recognize that improvement is needed. That is quite a dose to swallow. But if trouble, even mild unpleasantness, shows up—and particularly if it comes repeatedly and follows a pattern—the dose had better be swallowed.

One of the best practices a mill man in a responsible position could develop is that of assuming in his own mind that in some way he is responsible for every outburst of unsatisfactory human relations with which he is concerned. Instead of fussing and fuming and going home to brag to his wife about the way he handled things, he should search back through the trouble for some attitude in himself that made him act as he did. In many cases he will find, if not the cause of the trouble, at least something that contributed directly or indirectly to it.

It goes without saying that every mill man is anxious to improve himself. Improvement in external things is easy. A little time, thought, and effort can bring great improvement in technical knowledge, in techniques for getting work done, and in general intelligence about mill business.

Internal improvement is not so easy. It requires long and arduous battle with cherished opinions, prejudices, habits, and self-interest. It is an operation of the first order to stop defending yourself to yourself. But that is the path to upgrading. If enough mill men did it seriously enough for long enough, the caliber of men who run mills would improve as fast as the mills progress physically.

O. M. Thomas

Let's talk HOSIERY FINISHING

Dreams of perfectly finished stockings become reality with a Turbo AD-48 to improve production in the finishing department.

Here is a dual-purpose machine that preboards and finish boards from 120 to 130 dozen pairs of *perfectly finished, static-free* stockings per 8-hour day.

Preboarding is with steam. Timing is automatic. Unvarying production is assured, there is no guesswork.

Finish boarding is with recirculated warm air, which keeps stockings static-free and easy to handle.

Two groups of 24 forms operate on a collapsible "spider" — you can run two sizes at one time. Action is gentle as a lamb, there is no jolting or banging to damage the filmy fabric. Forms are well spaced for ease in dressing, stripping and constant inspection. Only one operator is needed. Manual labor is limited to dressing and stripping the forms.

Now is the time to investigate the advantages of the Turbo AD-48, to produce stockings with that buy-me-on-sight look. Write today for the Turbo story on precision machines that are finishing America's loveliest stockings.

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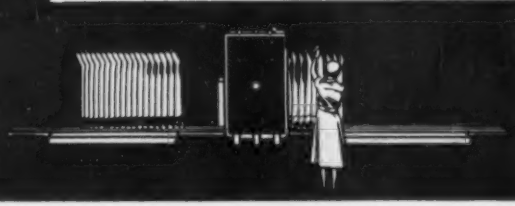
"Gentle as a Lamb"



WHY HAVE THESE LEADERS IN THE WORSTED AND SYNTHETIC YARN INDUSTRY SELECTED SACO-LOWELL ROVING AND SPINNING FOR THE PRODUCTION OF THEIR QUALITY YARNS?

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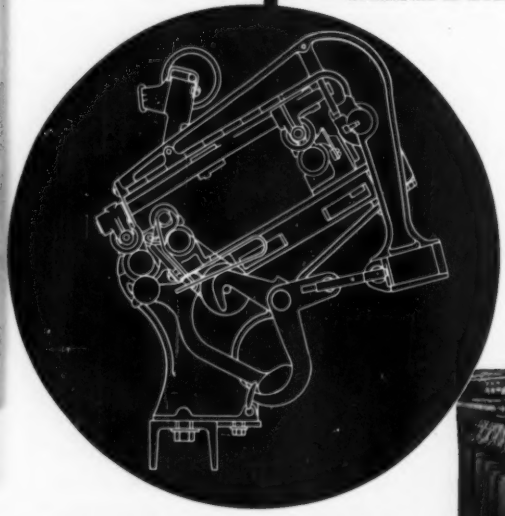

Cross-section of SS-4 Drafting Assembly.

Here are seven good reasons:

1. The drafting elements are not built around a modification of any "cotton system," but have been designed especially for wool and synthetics.
2. This system is new in concept, original in design, rugged in construction.
3. With roll spreads ranging from the minimum of 3.375" to the maximum of 9.00", it is possible to process all of the commercial grades of wool and synthetics without time-consuming and expensive equipment changes.
4. The adjustments required when changing from one stock to another are readily made in a short time.
5. The fiber control required to assure smooth and even drafting is equally effective on both long and short wools, as well as synthetics and blends of these fibers with wool.
6. Large roll diameters, with effective weighting systems, assure freedom from those defects which develop from fiber slippage, undrafted grists, and "lap-ups and chokes."
7. Modern sub assemblies, including New Era Spindles, Lubricated Rings, "Umbrella Creels," and S-L-T Self-Aligning Antifriction Top Rolls all contribute to trouble-free and economical operation.

This equipment gives manufacturers of quality yarns and fabrics a ready solution to the pressing problem of process simplification with lower operating costs along with a remarkable improvement in yarn quality.

A prominent manufacturer has stated

"I have found that the SACO-LOWELL System for Spinning, using the FS-4 and SS-4 Roving and Spinning Frames, enables us to process all types and grades of commercial wools with maximum economy, combined with substantial improvement in quality."

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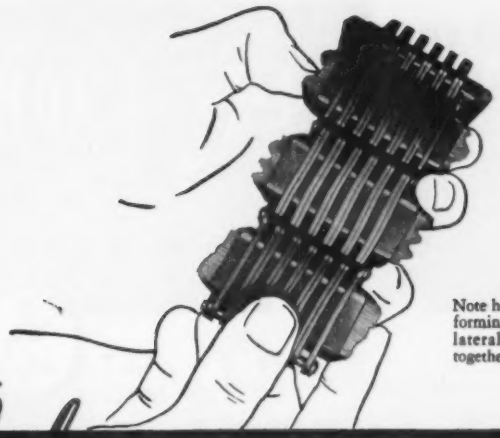

Note how slats in the self-tooth-forming chain are free to move laterally—either singly or together.

Only **the P.I.V. variable speed drive uses**

SELF-TOOTH-FORMING CHAIN

to give you positive, stepless speed changing

The operation of Link-Belt's P.I.V. Variable Speed Drive is not dependent upon friction for power transmission.

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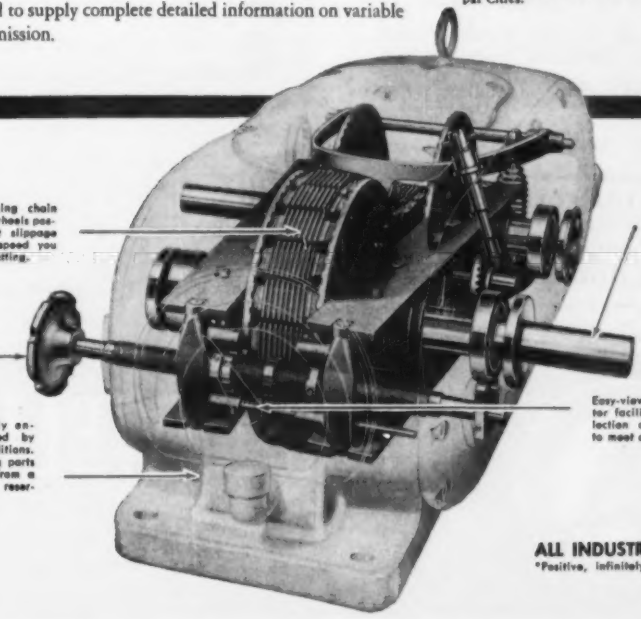

Self-tooth-forming chain grips toothed wheels positively without slippage — gives the speed you need at any setting.

You can get minute speed changes and maintain them accurately while operating under full load.

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*Positive, infinitely variable

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10. No wear whatsoever on saddle, cap bars and roll necks.

S-L-T TOP ROLLS are standard equipment on the new

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12. High capacity needle bearings assure long life, low maintenance cost.
13. Arbor heat treated for extra toughness, durability, wear resistance.
14. Labyrinth seal of simple design prevents entrance of fly and dirt.
15. Rugged in design, to withstand rough handling, dropping or abuse.
16. Rolls require no adjustment by mill personnel.
17. "Runout" minimized, through a high degree of concentricity.
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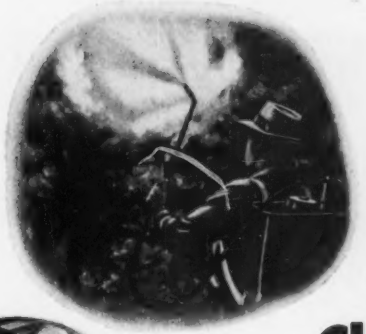

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ORTAC (Oil Resistant Tube and Cover) hose is available in sizes from 3/16" to 1½" in long, continuous lengths. Factory application of couplings if desired.

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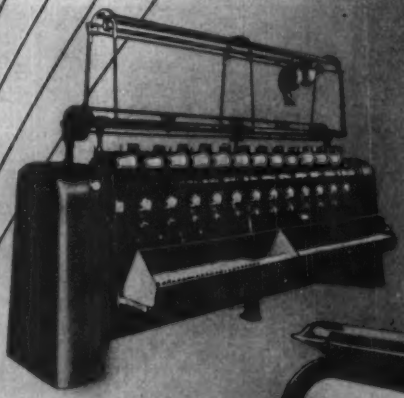

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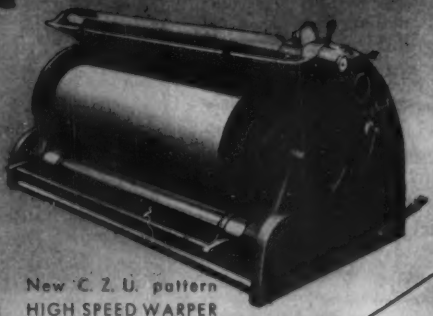
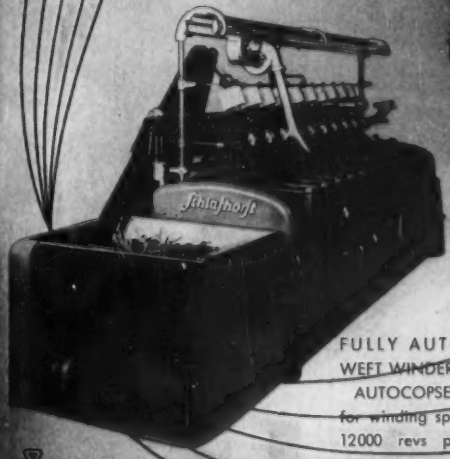
CONE AND CHEESE WINDER
B. K. N. PATTERN
SELF-THREADING
for winding speeds up to
1300 yards per minute



New C. Z. U. pattern
HIGH SPEED WARPER
Extraordinary production
Greatest simplicity



We also make CONE CREELS
of various types, such as f. i.
MAGAZINE CREELS
and TRUCK CREELS
with electric detectors of our
eyeboard system

FULLY AUTOMATIC
WEFT WINDER (QUILLER)
AUTOCOPSER A. S. F.
for winding speeds up to
12000 revs per minute

W. SCHLAFHORST & CO · M.GLADBACH · GERMANY

"Proper Processing invites inspirational fashions!"

says *Tina Leser*

Well-Known American Designer

"I take great pride in my Palm Beach Fashions," says Tina Leser. "And because I personally select all my fabrics with extreme care, I have become particularly conscious of the part that proper processing plays in the texture and beauty of the finished fabric."

Yes, *Proper Processing* means a great deal to designers like Tina Leser. If you have a processing problem—remember this: There is a C.P.P. wetting, scouring, fulling or dispersing agent exactly suited to your needs.

Ask your C.P.P. representative— or write to our Industrial Department for details.

● *This three-piece bathing ensemble by Tina Leser features a two-piece bathing suit and a matching stole. It's fashioned of silky rayon, in a striking black and white plaid pattern.*

MENTOR BEADS

An alkyl aryl sulfonate detergent . . . of high purity . . . stable in acid and alkali . . . outstanding detergent and wetting properties. Sold east of Rocky Mountains only.

COLGATE FORMULA 25

For low-temperature washing ordinarily requiring olive oil soaps. Sold in eastern states only.

BADGER FLAKES

High-grade thin white flakes. Not milled or polished. Sold in New England states only.

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Made from pure tallow, guaranteed to contain 88% or more soap. Titer approx. 42°C.

ARCTIC SYNTEX A AND T

Synthetic detergents and wetting agents. Unsurpassed for many processing operations.

FREE! *New 1952 Handy Soap Buying Guide. Tells you the right soap for every purpose. Get a copy from your C.P.P. representative, or write now to our Industrial Department.*

Colgate-Palmolive-Peet Company

Jersey City 2, N. J. • Atlanta 5, Ga. • Chicago 11, Ill. • Kansas City 5, Kans. • Berkeley 10, Calif.

Perhaps Cellucord* is the yarn that will help you to improve quality and reduce costs!

The Cellucord Corporation, pioneer in development and leader in production of kraftcord yarns has, through its intense specialization and perfection of Cellucord Plasticized Backing Yarn, achieved an enviable position in the floor coverings industry.

While making this permanent contribution to one industry, our engineers have been delving into the possibilities inherent in this enduring, versatile made-in-America yarn for other industrial uses.

This yarn has already proved successful in the manufacture of hampers, seat covers, carriages, fruit bags, hand bags, matting, summer rugs; also in making shoe welts, cable wrap and other sundry products.

We feel certain that Cellucord has infinite applications in the Textile Industry, because it's a strong, durable, pliable, uniform yarn that can be woven or knitted into a fabric . . . can be coated or laminated with resins to make other desirable materials . . . is available in many colors and in many weights from 60 yds. to the pound to 2880 yds. to the pound . . . you can have it in several plies and in various twists . . . its supply is endless, its manufacture is dependable . . . it can be delivered on cones, spools, spindles, cops or what-have-you . . . and it is one of the world's most economical textile yarns to buy and to use.

Other features include resistance to flame, rot, dust. Dampness or moths cannot harm it. Extremes of heat or cold cannot affect it. Scrubbing or dry cleaning won't shrink it or stretch it.

Why not have your fabric designers explore with us? Perhaps together we can help you to develop and produce new and better textile products—at lower costs—with Cellucord.

We are equipped and prepared to follow through to achieve results. No obligation, of course, to find out. Send coupon or write

*Reg. U.S. Pat. Off.

THE CELLUCORD CORPORATION
630 Fifth Avenue, New York 20, N. Y.

We are interested in learning more about Cellucord.

NAME .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

Cellucord
PLASTICIZED

THE CELLUCORD CORPORATION
630 Fifth Avenue, New York 20, N. Y.

3 big savings with Gates Multi-Check Strap

1 Lasts 2 to 10 times longer

than one-piece straps, scores of mills report. That's because the tough, resilient Tex-Hide in the Multi-Check Strap doesn't stretch, crack, or deform. And *progressive checking* distributes wear over all four molded bands, giving longer check strap life.

2 Makes picker sticks last longer.

An *open-end* strap (1) drags around the ends of the picker stick, and (2) forces it against the back of the slot. Wear at these points weakens sticks. Double-brake checking with Multi-Check Strap eliminates this wear—saves sticks.

3 Makes pickers last longer, too.

When an open-end strap forces the picker stick toward the back of the slot, the shuttle spur strikes the picker off-center, wearing out the side of the shuttle hole. Multi-Check strap keeps picker stick aligned with shuttle, eliminating this costly wear.

No down time for adjustments... smoother loom operation...

The savings in replacement costs of check straps, pickers, and picker sticks *are not the only savings.* Gates Multi-Check Strap greatly reduces down-time for replacement and adjustment of these parts.

And the smooth check you get helps eliminate shuttle bounce...makes looms run more smoothly.

All these advantages add up to *greater production, higher quality cloth, lower maintenance and replacement costs.*

Put Gates Multi-Check Straps on a section of your looms. Compare results!

The Gates Rubber Company, Denver, U. S. A.

Engineering offices and warehouse stocks in all textile centers.

Here's the smoothest shuttle check you've ever had...

Picker stick contacts *top* band of Multi-Check Strap.

Stick is then slowed by *second* band of tough Tex-Hide.

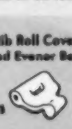
Third band absorbs more of the shuttle force.

Fourth band takes its share of the shock. Stick is checked *gradually* by *all 4 bands* acting together.

Tex-Hide Harness Straps

Tractive-Rib Roll Covering Cone and Evenor Belts

Tex-Hide Reversible Pickers



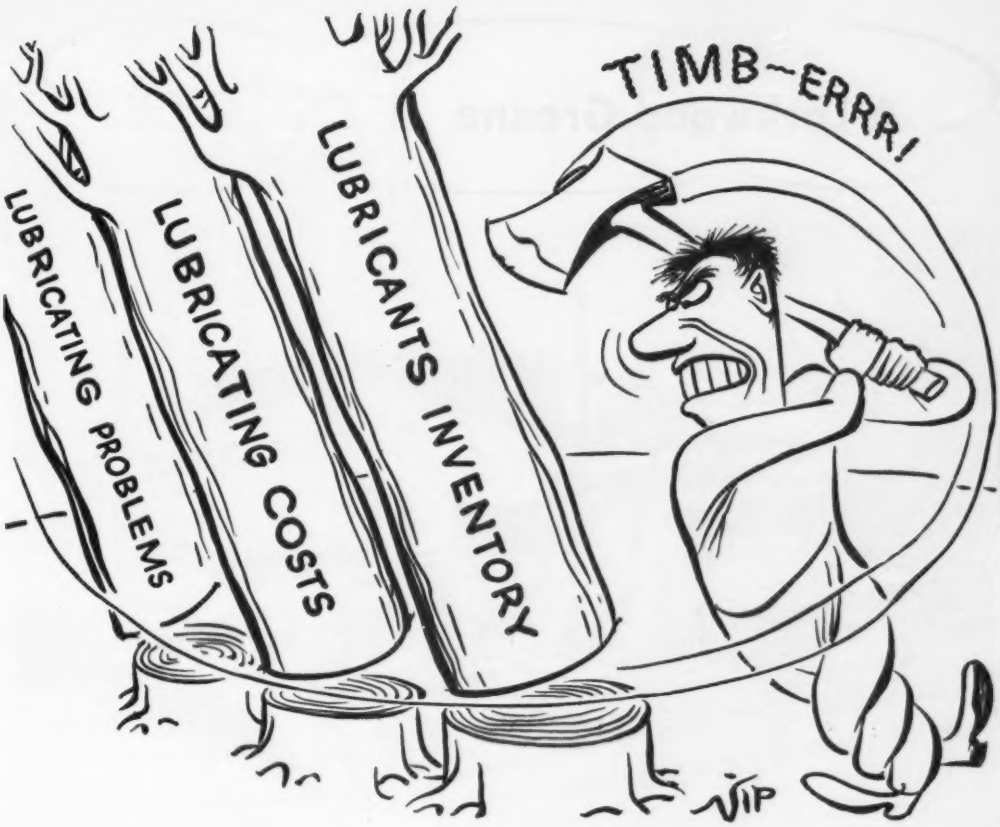
Gates

V-Belt Loom Drive Textile Mill Hose

Tex-Hide Loop Pickers

Tex-Hide and Super Tex-Hide Lug Straps

Gates Tex-Hide Multi-Check Strap



You can do it, too . . . with Pure Oil Industrial Lubricants

At one fell swoop, you can cut your inventory . . . cut your costs . . . cut your problems . . . with Pure Oil's complete line of industrial lubricants.

Many of these top-quality oils and greases, you see, are designed to do several *different* jobs instead of one specific job.

And to do each job *equally well.*

This enables you to do *all* your lubricating with *fewer* lubricants. In other words, you can

simplify and save . . . with

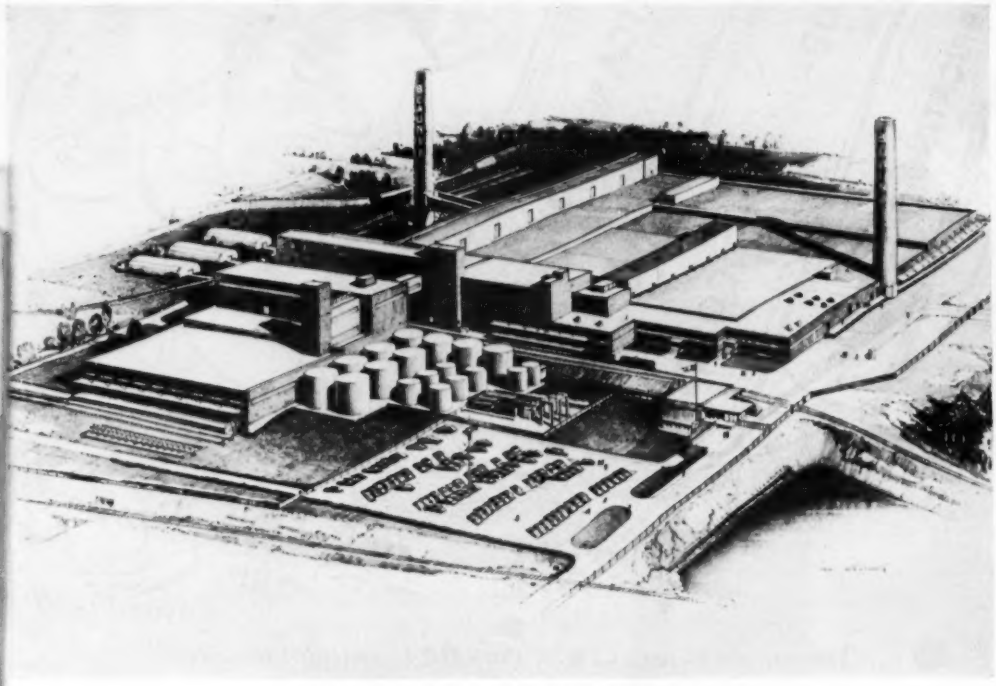
Pure Oil Industrial Lubricants

THE PURE OIL PURE COMPANY, U.S.A.

Be sure with Pure

If you would like to swing a sharp axe on *your* lubricating costs (and who wouldn't, things being what they are!) write: The Pure Oil Company, Industrial Sales, 35 E. Wacker Drive, Chicago 1, Illinois.

A Lockwood Greene Project



Beaunit Mills, Inc., Coosa Pines, Alabama

A Record of Service in Silk, Rayon and Synthetics

At the Beaunit Mills shown above, Unit #1 has a capacity of 10,000,000 lbs. per year of viscose filament yarn. Unit #2 has a capacity of 36,000,000 lbs. per year of viscose tire cord.

as measured by:

New Plants	29
Major Additions	24
Minor Additions, Reports, Appraisals	146
Total Engagements	199
Cost New Plants and Major Additions	$133,000,000

LOCKWOOD GREENE

ENGINEERS - ARCHITECTS

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New York 20, N. Y. 10 Rockefeller Plaza
Spartanburg, S. C. Montgomery Bldg.
215 St. James Street, Room 601, Montreal, Canada

VOGUE says

PINKS

—from frail to strong

Sandoz has the dye you need

FOR SILK OR WOOL

Xylene Fast Red P
and the newly announced
Xylene Fast Bordeaux P

These colors have unusual fastness to light with superior fastness to washing, water, and perspiration.

FOR SPUN RAYON

Pyrazol Fast Rubine BLN
Pyrazol Fast Rubine FBL
Pyrazol Fast Orange 4G

For spun rayon dress fabrics which will be anti-creased, these colors provide maximum fastness to light, perspiration, and washing.

You can depend on Sandoz to provide the best colors to meet your specified requirements.

SANDOZ

thinks ahead with textiles

SANDOZ

For forecast colors as well as perennial favorites for both natural and synthetic fibers, select from the Sandoz line of chrome, acid, acetate, direct dyes and auxiliary chemicals—detergents, dyeing assistants, finishes.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y. Sales Offices: Boston, Providence, Fairlawn, N. J., Philadelphia, Charlotte, Chicago, Los Angeles, Montreal, Toronto.

4 LEUCOPHORS

LEUCOPHOR WS
for Wool,
Nylon, Acetate, Silk
ORLON, DYNEL

It's easy to apply because it is absorbed by the fiber at low temperatures

LEUCOPHOR R
(REDDISH CAST)
for
Cotton and Rayon

Excellent in anti-crease liquors and other acid finishing processes

LEUCOPHOR B
(BLUISH CAST)
for
Cotton and Rayon

Improves white effects on checked or striped fabrics containing colored and white effects

LEUCOPHOR DC

Soluble in organic solvents: trichlorethylene, carbon tetrachloride, tetrachlorethylene, benzene, chlorobenzene, toluene, naptha, acetone and mixtures of these solvents

Send for your copy of all these new Sandoz' booklets:

- √ Leucophor B
- √ Leucophor WS
- √ Leucophor R
- √ Leucophor DC

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y. **Sales offices:** Boston, Providence, Fairlawn, N. J., Philadelphia, Charlotte, Chicago, Los Angeles, Montreal, Toronto.

SANDOZ *thinks ahead with textiles*

SANDOZ

MACHINES MOUNTED ON Westsorb CAN'T CRAWL

Westsorb *adhesive-coated* machine mounts are solving more than the problem of vibration. Their (exclusive) adhesive coating on both sides prevents looms and all other machinery from "crawling." Eliminates realignment after installation. This minimizes down time—saves money.

Westsorb adhesive-coated felt mountings don't break down under heaviest service impacts. They resist oil, acid, grease, water and age. They are simpler to install than any machine pad. No holes or bolts—no adhesive to apply. Western Felt engineers located throughout the textile areas are anxious to cooperate.

WESTSORB
Vibration-absorbing
Machine Mounts

- Quickly installed
- No holes to drill
- No adhesive to apply
- Low "down-time"
- Saves floors
- Less machine repair
- Reduce plant noise
- Thickness for every need
- Engineered for every job

GET THIS DATA

WESTERN *Felt* **WORKS**
4035-4117 Ogden Ave.
Chicago 23, Illinois
Branches in all Principal Cities
MANUFACTURERS AND CUTTERS OF WOOL FELTS

Western Felt Works
4035-4117 Ogden Ave., Chicago 23, Illinois
Please send 18-page booklet containing data on efficiency tests of Westsorb machine mounts under looms and other equipment.

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Address .....
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WHY LOSE

Costly Time Adjusting Speed of Sheaves from the "Hard-to-get-at" Side, Between Frame and Drive?

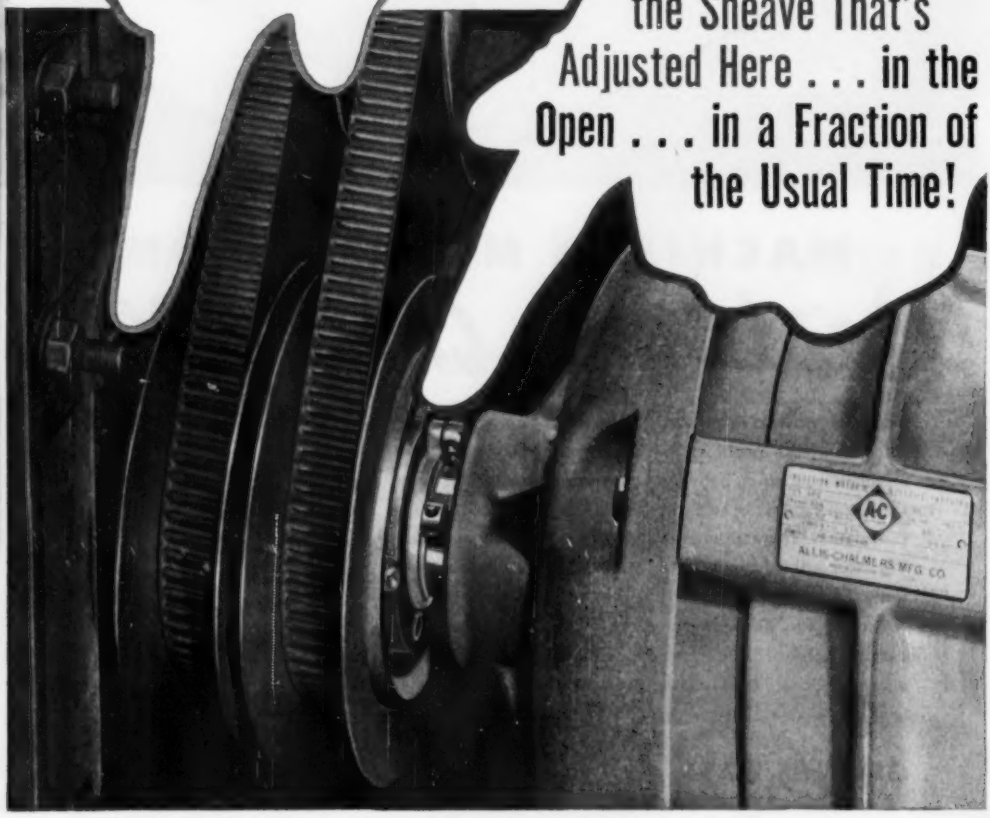
Wide Range

VARI-PITCH SHEAVE

with Magic-Grip Bushing

GET

the Sheave That's Adjusted Here . . . in the Open . . . in a Fraction of the Usual Time!



New *Magic-Grip* mounting! One screw makes or breaks vise-like grip of sheave on motor shaft. No peening, roughening or sticking of moving parts. And speed adjustment is faster, too. Get complete engineering data. Call your nearby Allis-Chalmers distributor or district office, or write Allis-Chalmers, Milwaukee 1, Wisconsin.

A-2836

Vari-Pitch and *Magic-Grip* are Allis-Chalmers trademarks.

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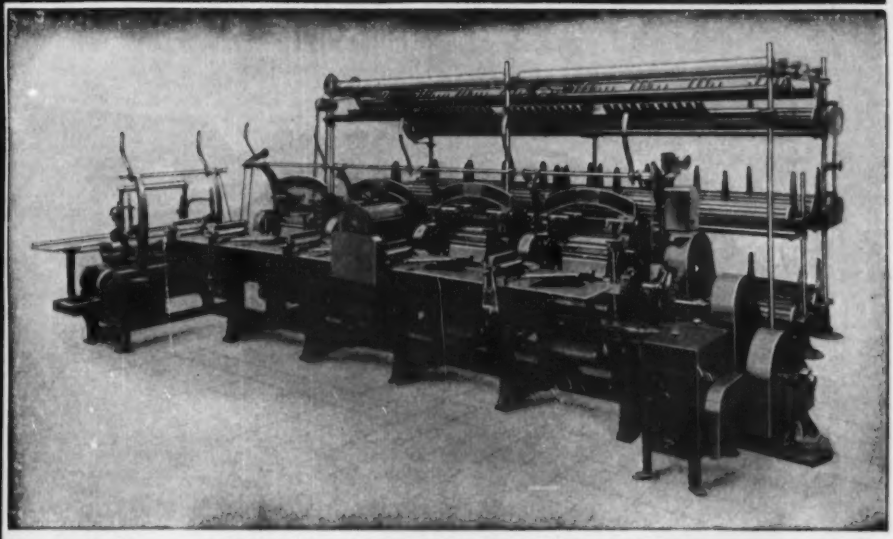


INTERSECTING-GILLBOX FOR MIXING

MACHINERY FOR TEXTILE INDUSTRY
WORSTED SPINNING

•

Representative in U. S. A.

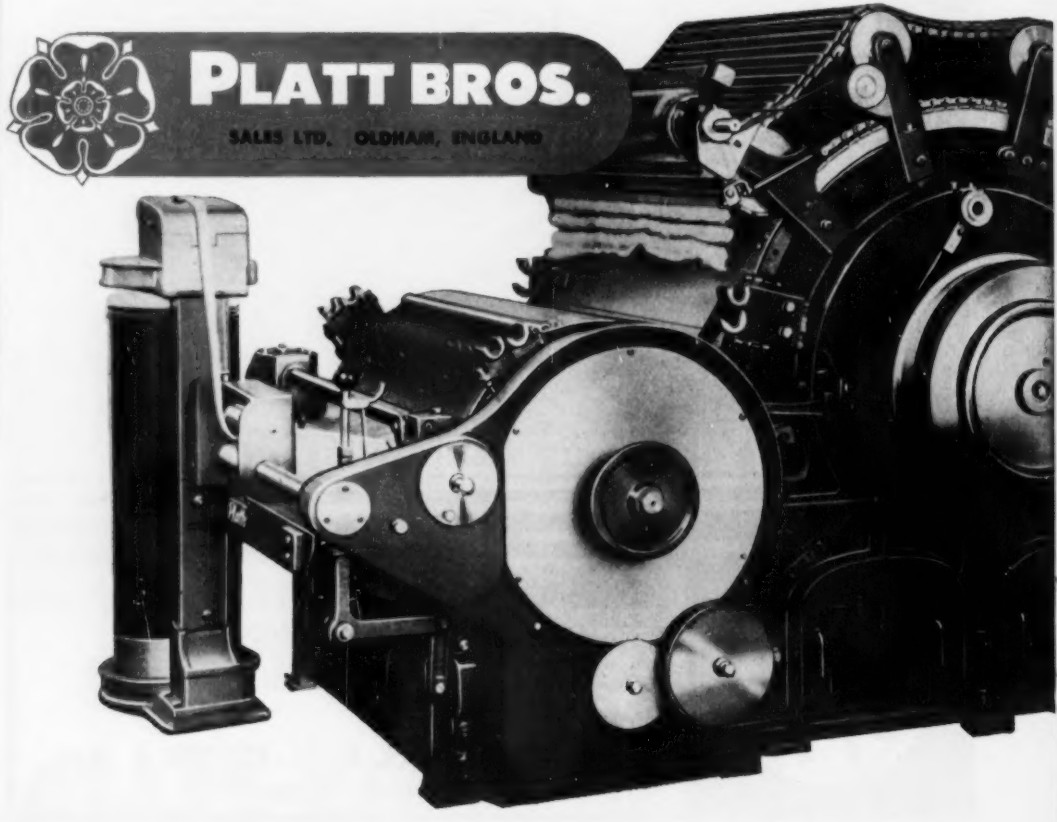
ATKINSON, HASERICK & Co.-BOSTON 6, Mass.

211 Congress Street - Tel: Hancock 0530

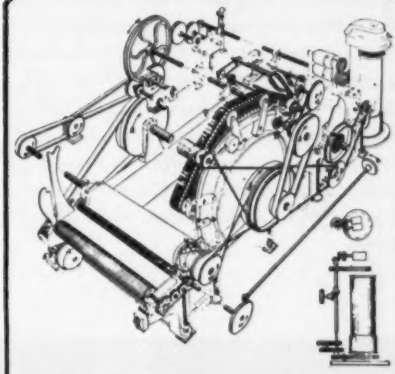
Hundreds of Platt

are already improving production in American cotton mills

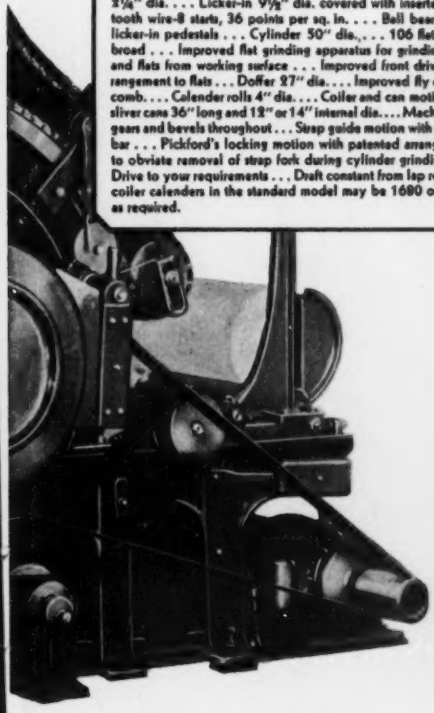
There are a lot of mills rediscovering the perfection of Platt machinery. This cotton card is solidly built to close tolerances. One outstanding result is the way it takes *and holds* an accurate setting; vibration is eliminated at all working speeds; undesirable air currents are eliminated. Notice the streamlined design and guarding to keep fly *outside* where it can be easily wiped off. It will pay you in immediate cash savings and future improved production to see this card in action. Could you visit our Charlotte machinery center, or perhaps we could arrange a trip to a nearby installation? You'll hear a lot about even, nepless webs!!



Cards



STANDARD SPECIFICATIONS: 40" wide . . . Clothing for your requirements . . . Dish feed plate with fluted steel roller 2¼" dia. . . . Licker-in 9½" dia. covered with inserted saw-tooth wire-8 starts, 36 points per sq. in. . . . Ball bearings to licker-in pedestals . . . Cylinder 50" dia. . . . 106 flats 1½" broad . . . Improved flat grinding apparatus for grinding wire and flats from working surface . . . Improved front driving arrangement to flats . . . Doffer 27" dia. . . . Improved fly doffing comb. . . . Calender rolls 4" dia. . . . Coiler and can motions for sliver cans 36" long and 12" or 14" internal dia. . . . Machine cut gears and bevels throughout . . . Strap guide motion with handle bar . . . Pickford's locking motion with patented arrangement to obviate removal of strap fork during cylinder grinding . . . Drive to your requirements . . . Draft constant from lap roller to coiler calenders in the standard model may be 1680 or 2240 as required.



Seeing the machine and the process...

Being engineers and agents for every type of cotton preparatory machinery gives us a broad perspective; an understanding of the interdependence of machines; you might say the ability to see *the forest and the trees.* May we be of service to you in selecting a single machine or a complete mill?

Atkinson, Haserick & Co.

a. h.

Textile Machinery Agents and Engineers Since 1823

211 CONGRESS STREET
BOSTON 6, MASS.
1639 W. MOREHEAD STREET
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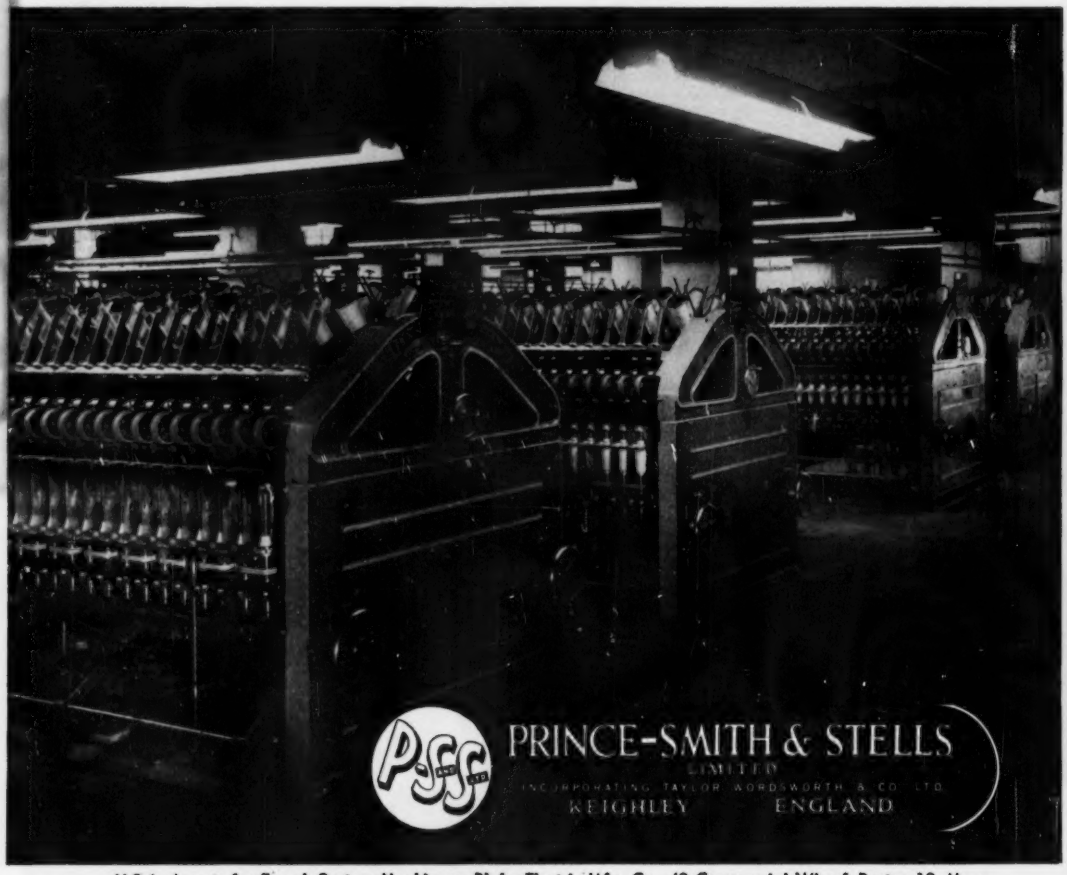
Large Package High Speed

MAGNUM RING SPINNING FRAME

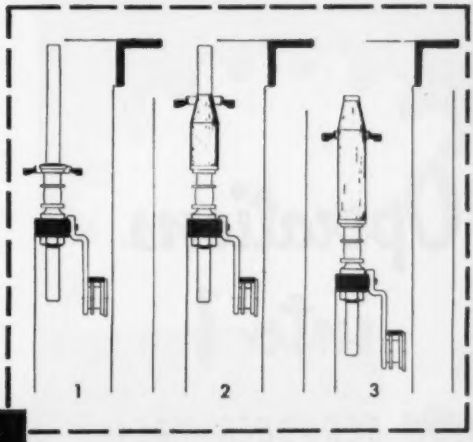
The Magnum Ring Spinning Frame combines the valuable features of a stationary ring rail spinning frame, with the good points of a traversing ring rail type of machine. It eliminates practically all the disadvantages of both, with the result that very large packages may be used with complete success. These packages may go up to 8 ounces and cover counts up to 42's. The greater length on the bobbin allows for fewer doffings, consequently, higher efficiency of the machine and the operatives. Less frequent creeling in later winding operations is a valuable indirect benefit. This is a *tested* and well *proven* spinning frame which has demonstrated its ability in hundreds of mills to produce excellent quality worsted yarn at high speeds. It would be a pleasure to send you data on the capabilities of the Magnum Ring Spinning Frame with reference to the type of yarns you produce.



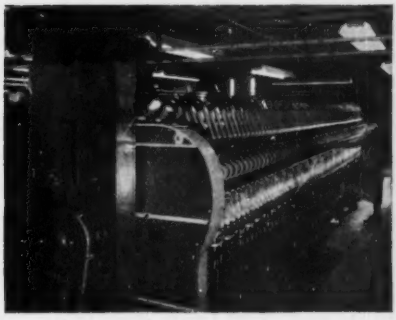
U.S.A. Agents for French System Machinery: Blake Electric Mfg. Co., 43 Commercial Wharf, Boston 10, Mass.

For more information, write direct or use Reader Service post card.

How Magnum action steadies the balloon

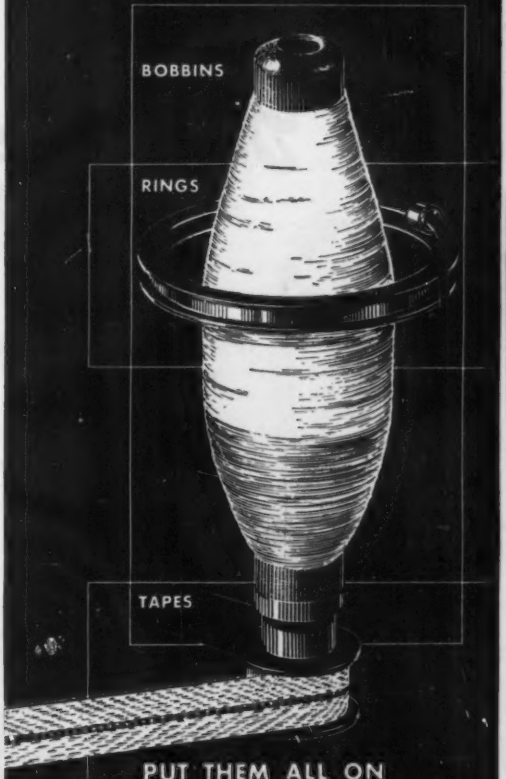


Progressive stages of building the bobbin are shown in the illustration. You will note that the spindle rail is stationary until the bobbin is half filled. At this time it starts to drop in order to compensate for the rise of the ring rail. This dual action maintains a relatively constant balloon. With this control, yarn breakage is quite infrequent, in fact you will find that your yarn will now contain only about a quarter of the knots formerly experienced from standard ring frames.



WE ARE INDEBTED TO
THE CLEVELAND WORSTED MILLS CO.
FOR THE PHOTOS
APPEARING ON THESE PAGES

Get Your
MILL SUPPLIES
the easy way



PUT THEM ALL ON
THE SAME ORDER
To

Atkinson, Haserick & Co.
Textile Machinery Agents and Engineers Since 1823
a.h.
211 CONGRESS STREET
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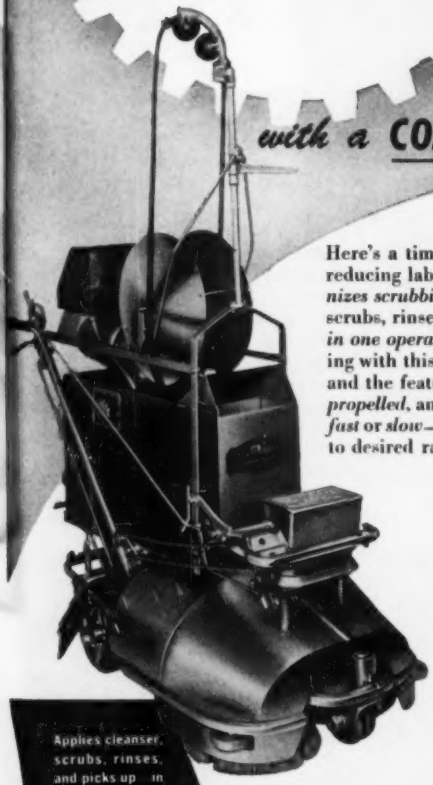
MECHANIZE 4 Scrubbing Operations into 1

with a COMBINATION SCRUBBER-VAC!



Here's a timely answer to the need for conserving manpower and reducing labor costs—*a single cleaning unit that completely mechanizes scrubbing.* A *Combination Scrubber-Vac* applies the cleanser, scrubs, rinses if required, and picks up (damp-dries the floor)—*all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive* clutch. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly.

Model 213P Scrubber-Vac at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! (Powder dispenser is optional.) *Finnell* makes *Scrubber-Vac Machines* in a full range of sizes—for small, vast, and intermediate operations—and in *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac*, and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1911 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Conserve Manpower with Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

FINNELL

BRANCHES IN ALL PRINCIPAL CITIES

Typical water-spotting on taffeta (above). Same grade of taffeta sized with Stymer LF (right).

HOW TO KEEP OFF THE SPOT

By sizing dope-dyed yarns—for the new loom-finished fabrics—with STYMER LF

Along with dope-dyed yarns came many real advantages, but also one "bug" that everyone knew had to be licked—water-spotting.

Certainly, the sizes you used on white acetate, when applied to dope-dyed yarns, did an excellent job in many respects . . . and made it possible to weave beautiful taffetas. But there was one serious problem with these sizes—they contributed to water-spotting of finished garments. Stymer LF *does not* contribute to water-spotting.

This is why Stymer LF is worth a good long look. For Stymer LF is an odorless, durable size—one that performs well all the way from slasher to loom—and also produces a good-looking, *non-spotting* finished fabric with a marketable hand.

If you weave dope-dyed filament acetate, Stymer LF may be just what you've been hoping for. Write for the full story today. MONSANTO CHEMICAL COMPANY, Textile Chemicals Department, Boston 49, Mass. Stymer: Reg. U.S. Pat. Off.

MONSANTO
CHEMICALS—PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

3M COMPANY

The term "Scotch" and the plaid design are registered trademarks for the more than 200 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 270 Park Avenue, New York 17, N. Y. In Canada: London, Ont., Can.

SCOTCH BRAND TEXTILE TAPES

One tape saves Wamsutta Mills 950 yards of yarn a week!

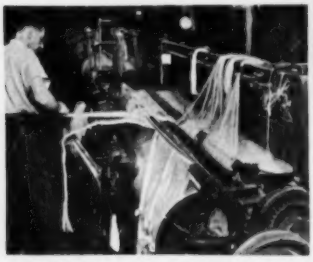
Gustave Lamarche, Overseer of Slashing at Wamsutta Mills, New Bedford, Mass., tells the story in his own words:

"Since using 'Scotch' Brand Textile Tape No. 254 on cottons we have effected a saving of approximately three yards per warp, tied at the loom with a portable warp-tying machine. With 1,850 looms, and an average change of warps every six weeks, our total saving is 950 yards of yarn per week."

Mr. Lamarche continues, "The preparation of the warp at the loom is as follows: An end-and-end lease is picked and the old warp cut out. The new warp is put into the loom. The yarn is wound off just enough to have the tape two inches beyond the whip roll, and a wooden rod—made for that purpose—is tied over the yarn onto the whip roll.

"The warp-tying machine operator brushes the yarn from the tape into the machine. After the warp is tied, the yarn is made tight, the tape peeled off, and the knots pulled through the drop wires, harnesses and reed. The loom is then ready to weave."

Nine hundred and fifty yards of yarn a week—that's a remarkable saving with just one tape! Yet "Scotch" Textile Tape No. 254 saves *even more* at Wamsutta Mills. It saves *time*, too—



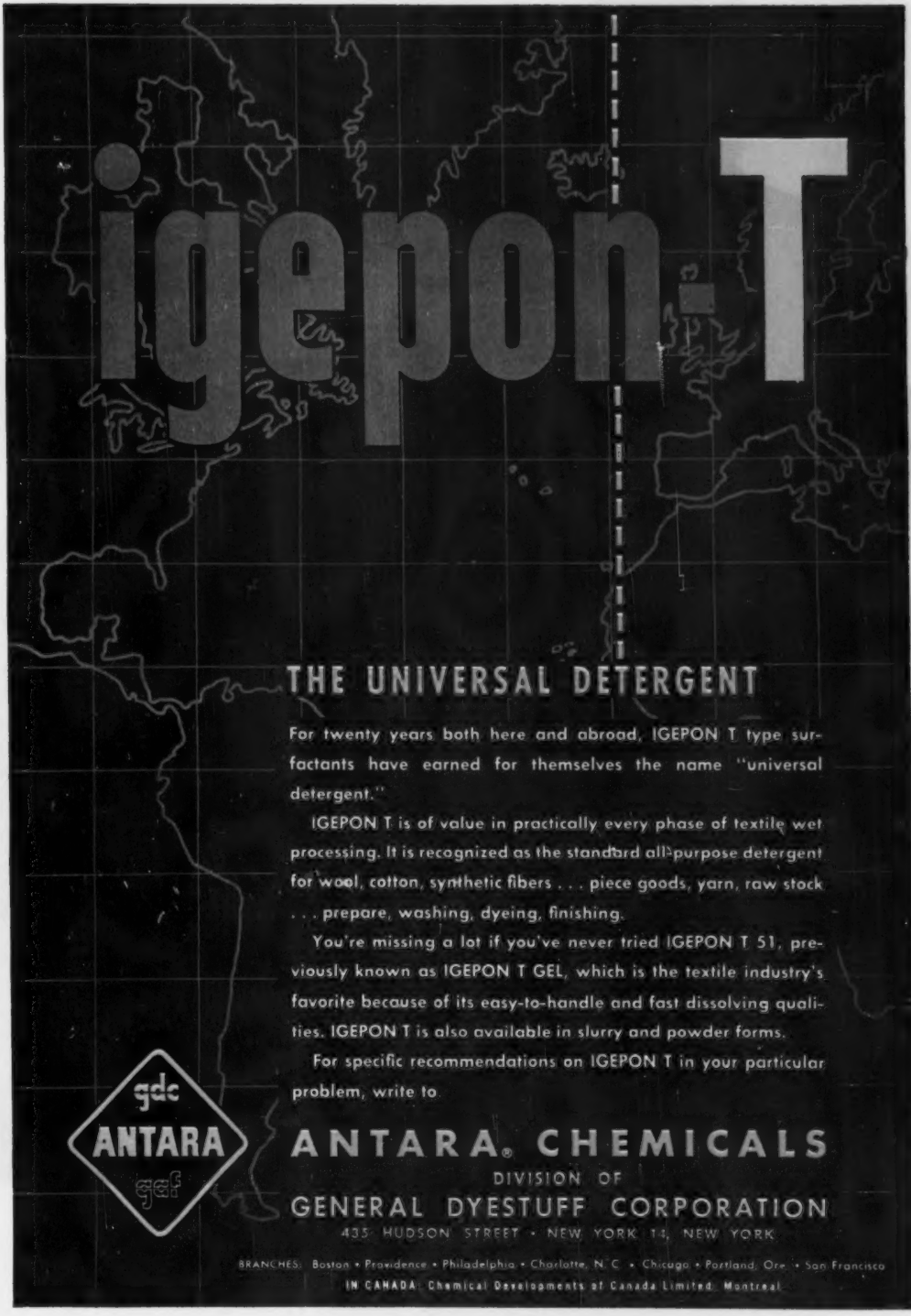
hundreds of hours of valuable time. And it makes the worker's job so much easier, less tiring.

Wamsutta Mills, leaders in the quality sheet and pillowcase field for over a century, are typical of the textile giants turning to "Scotch" Textile Tapes for new ways to save, new ways to do a job faster, better. In recent years, Wamsutta has taken the lead in injecting style into the Domestics business, and have recently introduced a new line of "Frosty-Tone" colored sheets for home use.

Why does Wamsutta choose "Scotch" Textile Tapes? The answer's easy: because "Scotch" is the brand name of the *world's most complete line* of tapes for the textile industry. That means you get the *one tape* best suited to do your particular job *right*.

Write us if you have a special problem you think a special tape can solve. We'll be glad to call whenever it's convenient for you. Perhaps the most convenient time is now!

Address: Minnesota Mining & Mfg. Co., Dpt. T-112, St. Paul 6, Minn.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Above, just a few of the sections in the new Westinghouse book. Some of the other sections are: Motors and Controls for openers and pickers . . . How individual drives can cut scouring costs . . . Improving carding operations . . . Cutting costs in finishing.

Here are new, profitable ideas for your woolen or worsted mill

Westinghouse offers a brand-new free book that tells you how alert woolen manufacturers are using modernized machine drives and electrical equipment to speed up their operations. It contains 40 pages of facts, case histories, illustrations and diagrams.

New book covers every mill department

You'll find worth-while suggestions here for every step in your mill—from opening and picking rooms to finishing department. You'll get the full story on the best drive for each type of machinery.

Example #1—How to increase slasher speed

New Westinghouse slasher drives enable you to set the warp speed you want. The drives *hold* this speed, regardless of changes in beam diameter, and keep tension constant. You get uniform beams with a minimum of loom stoppages.

Example #2—How to lick lint problems

Westinghouse screened textile motors and Lint-Free motors can't become lint-clogged. The Lint-Free motor has wide, smooth air passages designed in aerodynamic style. Lint zips in, through and out. The screened textile motor halts woolen fibers in the air stream, keeps them out of the ventilating passages and motor.

Write today for your copy

Send now for your free copy of "Westinghouse Equipment for Woolen and Worsted Mills," B-4798. And if you're modernizing, expanding or building a new mill, call your nearby Westinghouse office early in the planning stage. Westinghouse Electric Corporation, Box 868, Pittsburgh 30, Pennsylvania. J-94916

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QUALITY CONTROL

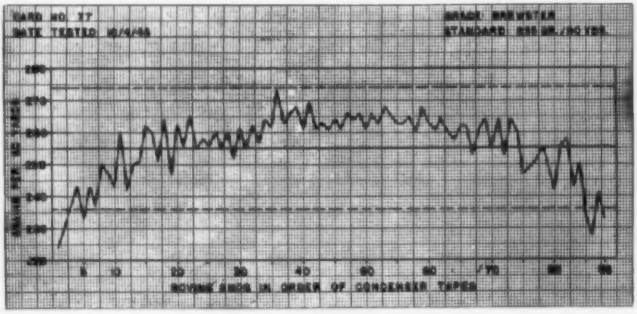
EVEN ENDS ACROSS THE CARD

May Be Obtained With

THE BIGELOW COMPENSATOR

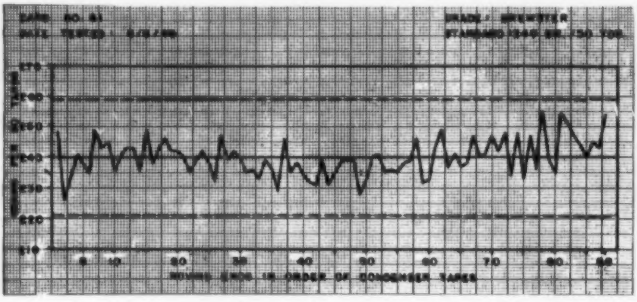
Made By

Davis & Furber Machine Company



Without the Compensator

Center ends are apt to be heavier than outside ends. The Compensator regulates the speed at which the broad band feed lays the web across the width of the feed apron; an eccentric gear motion speeds up delivery of the web at the center of the card and slows it down at the sides. It is controllable through a wide range to handle all machine conditions and types of stock.



The same roping with the Compensator

Attached to the side of the broad band feed opposite the expansion pulley it projects but five and one half inches beyond the standard feed. The compensator has been thoroughly tested under mill conditions and proved worthy.

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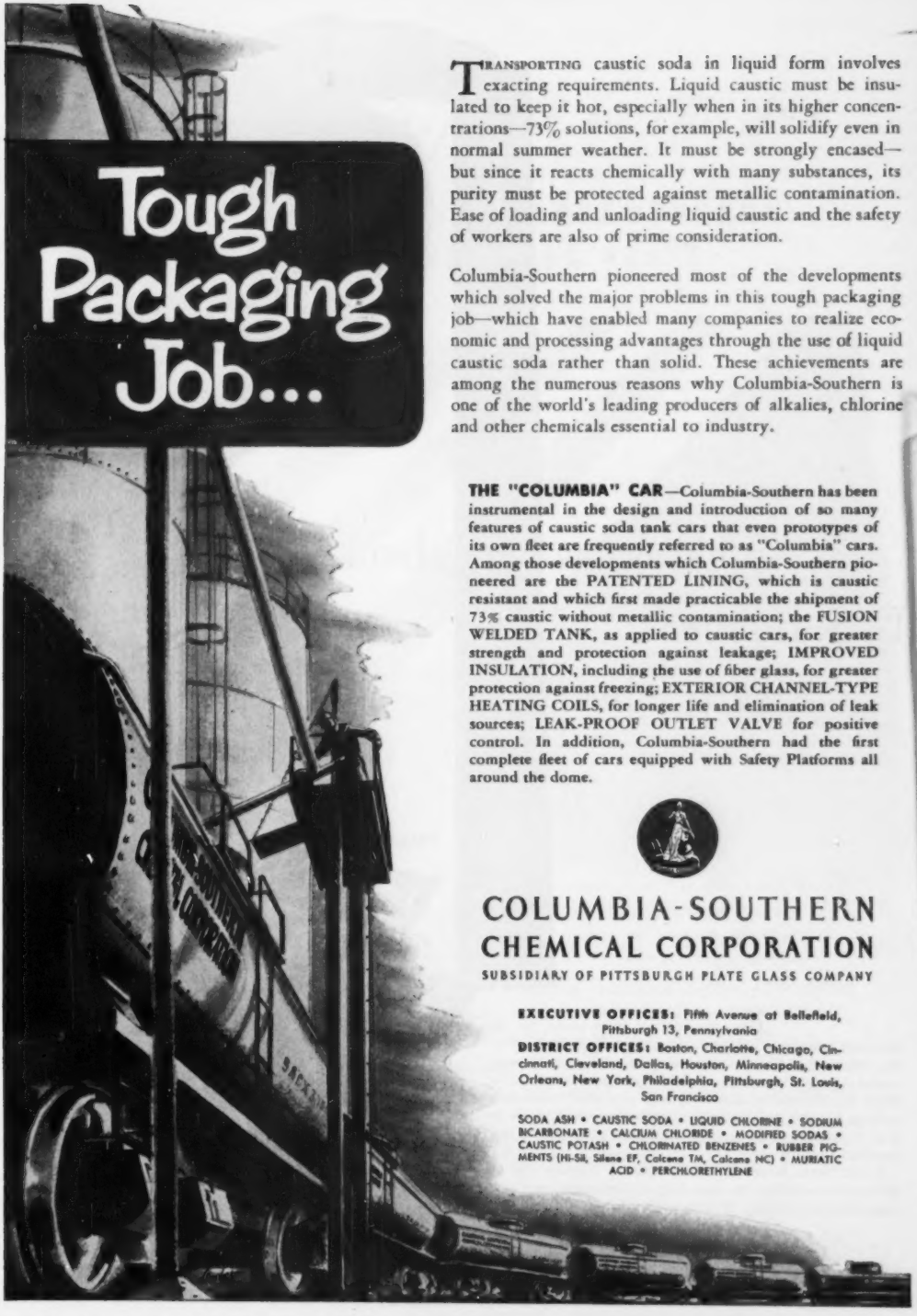

TRANSPORTING caustic soda in liquid form involves exacting requirements. Liquid caustic must be insulated to keep it hot, especially when in its higher concentrations—73% solutions, for example, will solidify even in normal summer weather. It must be strongly encased—but since it reacts chemically with many substances, its purity must be protected against metallic contamination. Ease of loading and unloading liquid caustic and the safety of workers are also of prime consideration.

Columbia-Southern pioneered most of the developments which solved the major problems in this tough packaging job—which have enabled many companies to realize economic and processing advantages through the use of liquid caustic soda rather than solid. These achievements are among the numerous reasons why Columbia-Southern is one of the world's leading producers of alkalies, chlorine and other chemicals essential to industry.

THE "COLUMBIA" CAR—Columbia-Southern has been instrumental in the design and introduction of so many features of caustic soda tank cars that even prototypes of its own fleet are frequently referred to as "Columbia" cars. Among those developments which Columbia-Southern pioneered are the PATENTED LINING, which is caustic resistant and which first made practicable the shipment of 73% caustic without metallic contamination; the FUSION WELDED TANK, as applied to caustic cars, for greater strength and protection against leakage; IMPROVED INSULATION, including the use of fiber glass, for greater protection against freezing; EXTERIOR CHANNEL-TYPE HEATING COILS, for longer life and elimination of leak sources; LEAK-PROOF OUTLET VALVE for positive control. In addition, Columbia-Southern had the first complete fleet of cars equipped with Safety Platforms all around the dome.

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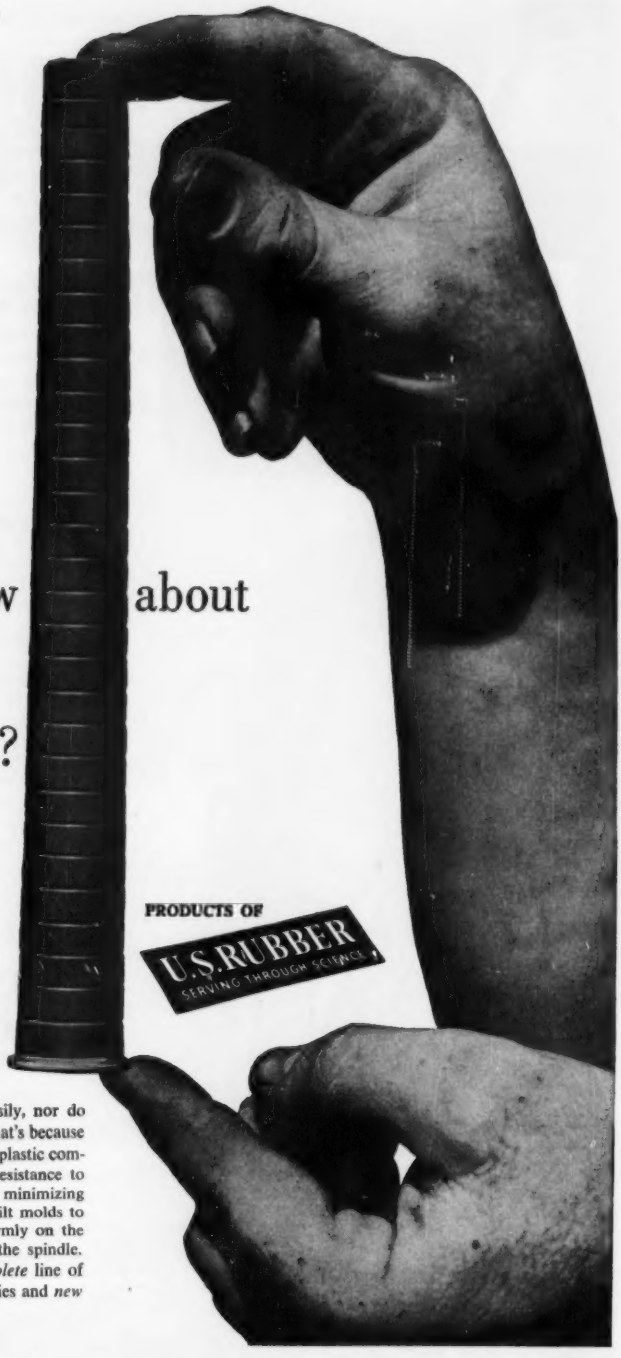

What's new about U. S. Rubber's warp tubes?

First, they do not crush easily, nor do they chip, splinter or roughen around the ends. That's because they are made of Uscolite, the sensational rubber-plastic compound. Uscolite warp tubes provide maximum resistance to abuse in a thin-walled tube. They hold yarn well, minimizing sluffing. Because they are molded in precision-built molds to close tolerances, Uscolite warp tubes seat uniformly on the spindles. There is never any working down on the spindle.

United States Rubber Company makes a *complete* line of textile mill specialties, incorporating *new* economies and *new* highs in product quality. Write to address below.

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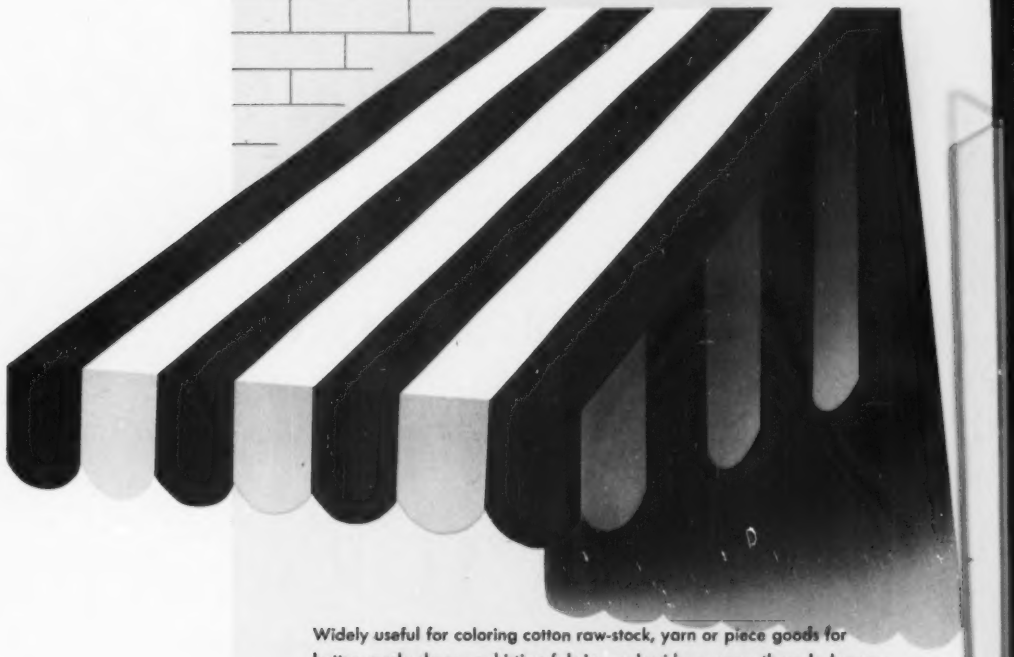

Widely useful for coloring cotton raw-stock, yarn or piece goods for better-grade dress or shirting fabrics, embroidery yarns, thread, drapery and upholstery fabrics and awning duck, this National anthraquinone vat dye has exceptional fastness to most color-destroying agencies.

It is rated "excellent" in fastness to washing, perspiration, water spotting, sea water, boiling soap, stoving, chlorine, peroxide and cross dyeing; "very good" to rubbing, mercerizing, boiling soda ash and light.

Get in touch with the nearest National Aniline office for technical and application data and a working sample of this addition to National's fast growing line of vat dyes. And always remember—we welcome the opportunity to provide technical service on difficult matches and to serve your everyday dyestuffs needs promptly from nearby stocks.

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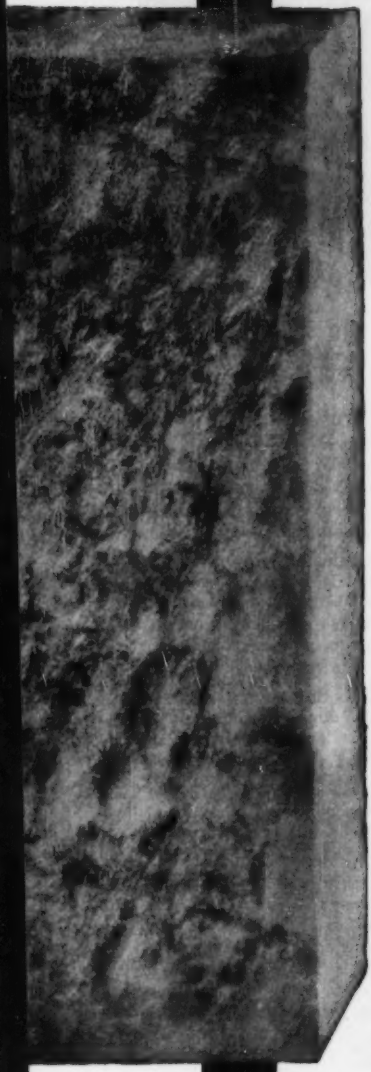


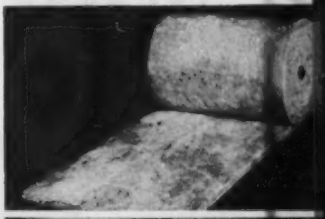
Highlights

OF THIS NEWEST FIBER GLASS OPERATION

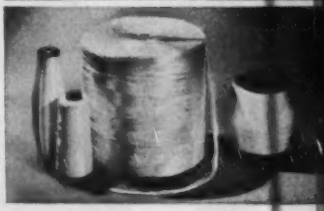
PLANT LOCATION—Shelbyville, 27 miles Southeast of Indianapolis, is served by the Pennsylvania and New York Central railroads. The location presents numerous advantages to many users of Fiber Glass.

PRODUCTION FACILITIES—The most advanced manufacturing processes and techniques are being employed to assure the production of Fiber Glass which meets the most exacting standards and requirements.

PRODUCTS—Two basic forms of Fiber Glass, each in a full range of grades and sizes, are being produced:



SUPERFINE INSULATION—Composed of fibers of exceptional fineness—from 3 to 20/100,000 of an inch in diameter—providing greatest thermal and acoustical insulating efficiency-to-weight ratios, extraordinary strength, compressibility and resiliency. In all standard grades and sizes, or fabricated to specifications.



YARNS, STRANDS AND ROVING—Continuous filament fiber, twisted and plied to provide yarns of the weights and types required for electrical insulation and industrial and decorative fabrics. Roving, composed of continuous filament strands, bundled in parallel, and chopped strands, consisting of roving cut to lengths of ½" to 2", for use in plastics.

TECHNICAL ASSISTANCE—A staff of trained engineers is available to lend technical assistance in utilizing PPG Fiber Glass to maximum advantage in all applications, particularly those involving new fabricating methods and products.

RESEARCH AND DEVELOPMENT—A program of continuing research and development is established for the purpose of giving users of PPG Fiber Glass every future advantage, from refinements in manufacture to benefits in utilization.

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You may be able to realize important advantages in using PPG Fiber Glass. For additional information, please contact Pittsburgh Plate Glass Company, Fiber Glass Division, 632 Duquesne Way, Pittsburgh 22, Pa. . . . or district sales offices in Chicago, Detroit, New York, Washington . . . or the nearest PPG Warehouse.

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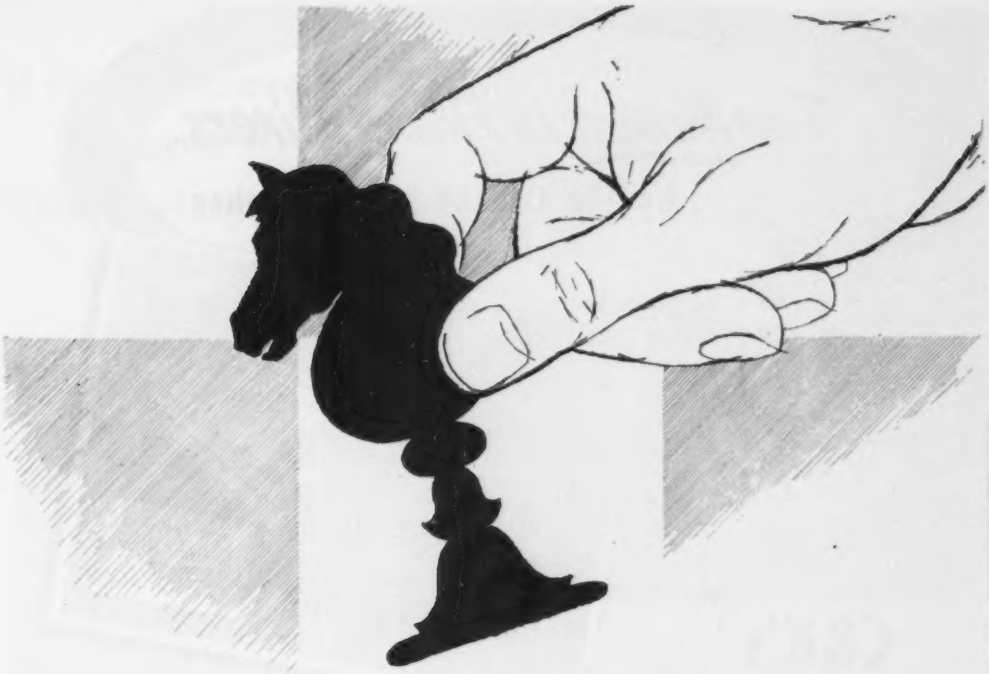

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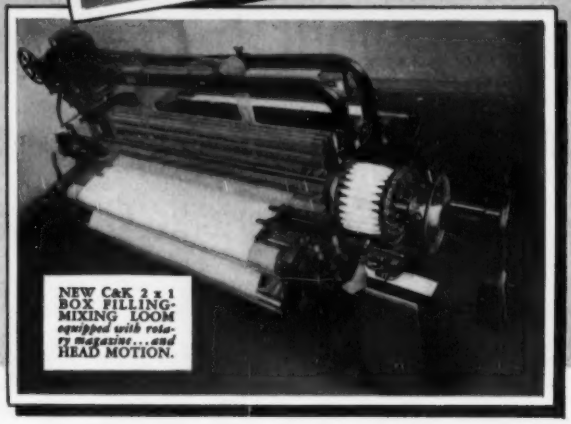

These new additions to C&K's long-established line of Filling-Mixing Looms were designed for that portion of your production which is limited to single color. These new single-purpose looms mean better cloth and more of it, at lower cost per yard — *and lower cost per loom.* See C&K today!

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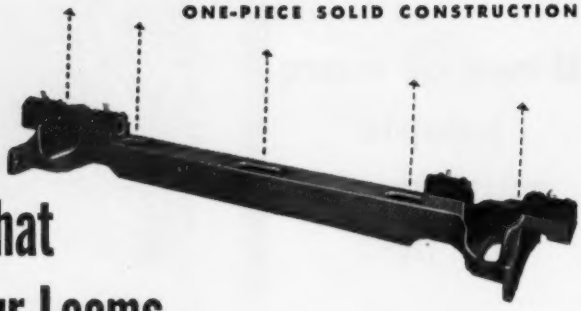
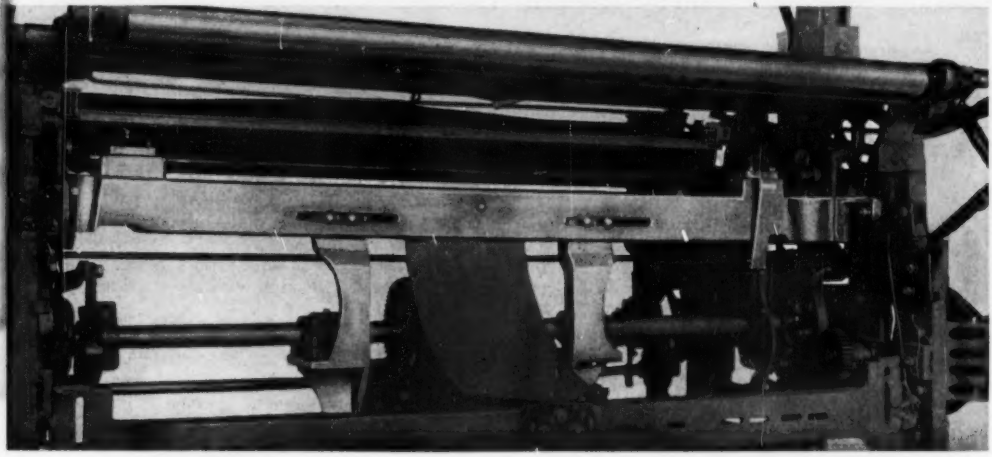


Here's the Spreader that actually supports your Looms

With Hunt Loom Spreaders of patented one-piece, heavy construction, the bearings are guaranteed to support the crankshaft instead of the crankshaft's supporting the bearings. Hunt is the only spreader you definitely know does the job it's designed to do:

1. **SUPPORT AND STABILIZE LOOM CONSTRUCTION**—(Holds loom together more rigid than any other spreader because of patented one-piece, heavy construction)
2. **INCREASE PRODUCTION**—(An average of 10 picks per minute)
3. **ELIMINATE BEARING ALIGNMENT**—(Because of one-piece construction, spreader and bearings are milled as one piece in one operation. It has to be true)
4. **IMPROVES QUALITY OF CLOTH**
5. **LESSENS WEAR ON LOOM PARTS**

With Hunt Spreaders, four bearings retain the crankshaft throughout its entire length to give added strength to the complete loom frame. The crankshaft is retained in alignment at all times, reducing whip and bending to a minimum.



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THE HUNT SPREADER
Is Actually Made a Part of the Loom

It rests securely in a cradle on the frame. The spreader is not only bolted to the loom side, the spreader bearings are held in place by permanent-construction dowel pins and do not require replacing.

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The Hunt spreader will not interfere with the loom's full harness capacity.

If you want further information on the only loom spreader that actually supports your loom, write today.

GROWING DEMAND FOR UNIFORMITY ANALYZER

brings new Brush "peak performance" service policy to Southeast!

• More and more mills are discovering the important benefits of the Uniformity Analyzer. To assure the peak performance and widest use of this instrument, The Brush Development Company and its Southeastern representatives W. A. Brown & Associates announce a new service policy for the states served by Brown.

This comprehensive policy provides a staff of textile-trained application engineers and service experts. These men will inspect Uniformity Analyzers periodically to make sure that these sensitive instruments are giving most accurate results. They will also assist users in interpreting and applying data to the mill's problems. In case of emergency, they will provide 24-hour service.

The new expanded policy applies to all new orders for Uniformity Analyzers in Southeastern states. It also will be available in the near future for existing installations in that area. In other regions, Brush technical assistance and service will be available as usual for all users of Uniformity Analyzers.

For full information, write The Brush Development Company, Dept. GG-37, 3405 Perkins Avenue, Cleveland 14, Ohio.

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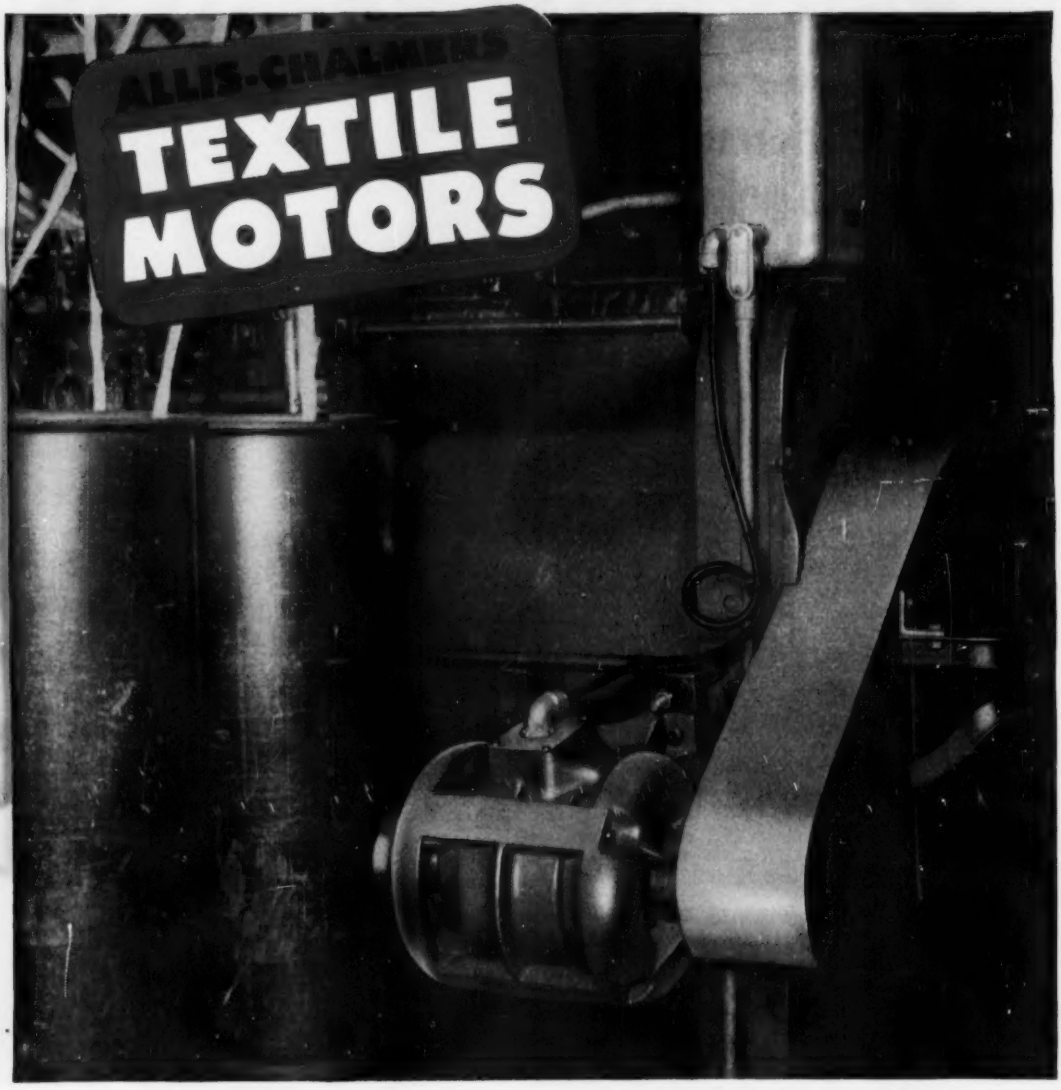
Industrial & Research Instruments

Stop "Ends Down" Due To



ALLIS-CHALMERS

Originator of the Multiple V-Belt Drive for the Textile Industry

Rough Roving Frame Starts

Allis-Chalmers roving frame motor accelerates slowly and smoothly...produces uniform roving ...is unaffected by air-borne lint.

YOU CAN REDUCE ends down when starting roving frames . . . cut lost production in spinning caused by thin spots in the roving yarn . . . by using Allis-Chalmers slow-accelerating roving frame motors on your roving frames, slubbers and other yarn drawing machines. This motor is built with special slow, extra-smooth acceleration characteristics to provide even tension on the roving during starting periods.

LINT-FREE *QUICK-CLEAN* DESIGN

Quick-Clean wide open frame design allows powerful fans to sweep lint and dirt in, out and away with the cooling air. Interior surfaces are smooth and hard. Large air passages are contoured to aid air flow.

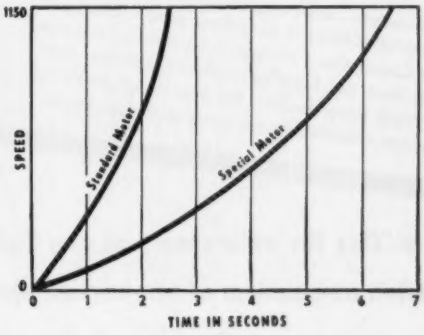
Bearings are lubricated and sealed at the factory and should need no attention for years. Grease cannot leak from the bearings to soil materials or collect dirt. Lint and dirt cannot enter bearings.

ONE SOURCE FOR COMPLETE DRIVE

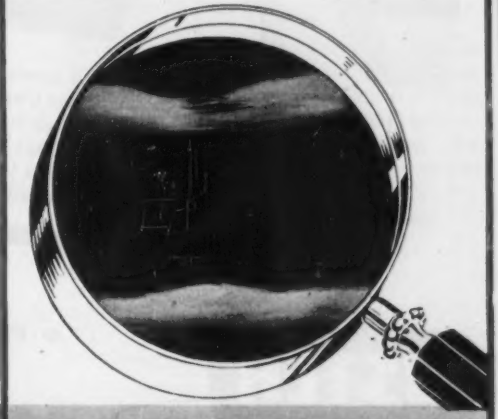
Allis-Chalmers can supply your complete machine drive needs—motor, control and *Texrope* V-belt drive—from one responsible source. Allis-Chalmers application engineers, practical men with an intimate knowledge of the textile business, will help you select exactly the right combination for your particular requirements.

For complete information on Allis-Chalmers products for the textile industry, ask your Allis-Chalmers District Office representative or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3784

Quick-Clean and Texrope are Allis-Chalmers trademarks.



Notice how the Allis-Chalmers roving frame motor requires almost three times as long as a standard motor to reach full speed.



Notice thin spots in upper piece of yarn caused by rough start of roving frame. This is one of the chief causes of ends down and lost spinning production.

USTER Does the Job Where Others Fail

The Uster Warp Tying Machine successfully handles fibres which have heretofore been considered beyond the range of portable tying machines. This, combined with its ability to save on loom down time, on labor, and in producing better work, makes the Uster Warp Tying Machine the best machine for any mill.

how Ix *eliminated an expensive bottle-neck*

Operator above working in fairly close quarters. The Uster can be set considerably closer than shown here, if necessary.

Close-up of Uster beginning a non-stop tying operation of the entire warp.

"We weave a great variety of materials—acetates, dull and bright Rayon, fine denier Nylon, high twist Crepe, and other fibres in our several mills," states Frank Ix, Jr. of Frank Ix & Sons Virginia Corporation. "We had never before been able to tie the high twist Crepe at the loom and have had difficulty with fine denier Nylon until we installed a Uster Warp Tying Machine. This machine efficiently ties all of our warps and can be changed to accommodate any material in a few seconds."

- **Ties the entire warp at one "bite"**
- **Precision mechanism of unmatched speed**
- **Compact—Convenient—Versatile**

USTER CORPORATION

Sales Offices: Boston — Atlanta — In Canada: Hugh Williams & Co., 47 Colborne St., Toronto, Ontario
Warp Tying · Leasing · Dropper Pinning · and Testing Equipment
2516 Wilkinson Blvd., Charlotte, N. C.

For more information, write direct or use Reader Service post card.

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CARTONS CREATE

IMPULSE BUYING

IN SELF-SERVICE MARKETS

Increase sales, profit and good will, with dynamic Gair Cartons. More and more, Impulse Buying of a product in Self-Service markets depends on the attractiveness and selling impact of the package.

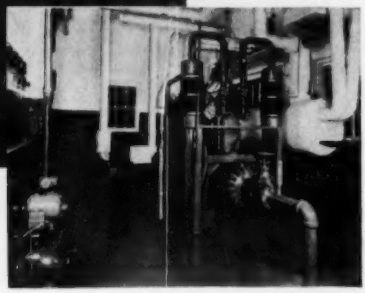
Safeguard the success of your new package by placing your packaging problem with the Gair organization. Yes! Gair has been designing and manufacturing folding cartons with a powerful "Sales Impact" for almost a century. For complete information

Write for Brochure on Gair Cartons.

GAIR | PAPERBOARD FOLDING CARTONS SHIPPING CONTAINERS

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK • TORONTO

Pilot Plant of Pepperell Manufacturing Company, Lindale, Ga.



At the heart of the pilot plant is this air conditioning equipment room — containing compressors, water chiller and cool water circulating pump.

PEPPERELL'S PILOT PLANT

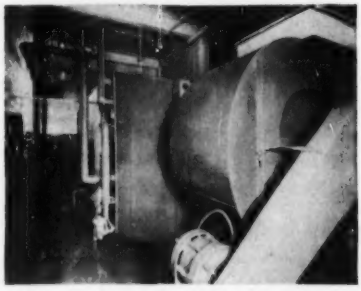
. . . synthetic fiber research at its best!

Amco Central Station Air Conditioning meets Pepperell's exacting specifications for control of temperature, humidity, air cleanliness.

When Pepperell Manufacturing Company built their "miniature mill" at Lindale, Georgia, they set out to produce a nearly perfect pilot plant for test operations with the newest synthetic textile fibers. To maintain complete atmospheric control the year-round, they had Amco install central station air conditioning with refrigeration and electrostatic air filtering. Accurate, adjustable control of temperature and humidity assures the exact conditions required for any given pilot operation. All ducts are hidden for neat appearance and easy housekeeping.

Of course, it isn't always practical, or desirable, to "streamline" a plant like this. Your plant — like many mills — may already have a modern, efficient humidification system. You can easily add COOLING with an Amco ductless system — without discarding anything, and by making only modest alterations.

Amco systems give you a choice of humidification, evaporative cooling (central station, dry duct, or ductless types) or refrigeration, alone or in combination. You can rely on Amco to give you advice on the system best suited to your needs. Call an Amco engineer.



Apparatus room contains air blower and washer

Benefits of Controlled Humidification and Cooling

Regain maintained • yarn counts kept more even • static electricity eliminated • closer machine adjustments and higher speed maintained • less broken fibers, dust and fly • cleaner yarns • stronger, more even fabrics • greater worker comfort and efficiency

AMCO

AIR CONDITIONING SYSTEMS since 1888

Humidification • Evaporative Cooling (Ductless or Central Station) • Refrigeration

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA • BOSTON • CAMDEN • CHARLOTTE • AFFILIATED WITH GRINNELL COMPANY, INC.

AHCOQUINONE® Violet 3R

For a Majestic Range of Violets and Blues

AHCOQUINONE VIOLET 3R is becoming increasingly popular wherever a rich royal purple or a blue or pearl shade is required. This violet has exceptional light fastness and is widely used for shading or brightening chrome colors. AHCOQUINONE VIOLET 3R also has superior fastness on nylon.

Complete technical data and literature available on request

A member of the AHCOQUINONE® family of colors for wool and synthetics

Quality · Integrity

For vat, acid, direct dyes or auxiliary chemicals for all fibres and fabrics . . . see AHCO first!

AHCO DYES

ARNOLD, HOFFMAN

PROVIDENCE • RHODE ISLAND

Associated with Imperial Chemical Industries Ltd.
London, England

ARNOLD, HOFFMAN & CO., INCORPORATED • EST. 1815 • PROVIDENCE, R. I.
Offices: Charlotte, Cincinnati, New York, Taterboro, Providence
Plants: Charlotte, N. C. • Cincinnati, Ohio • Dighton, Mass.

Enclosed Machine, multiple spindle unit for production lots, open position.

Closed Position

Subject: TOP DYEING MACHINE

For Brighter and More Uniform Colors

General: Riggs and Lombard Top Dyeing Machines are in service in many of the best-known mills. Both Open and the new Enclosed Models are available in single spindle machines for dyeing samples or small lots as well as the multiple spindle sizes.

Details: The Fleet Line's stainless steel Top Dyeing Machine, in both Open and Enclosed Models, offers these advantages:

Brighter and more uniform colors, and elimination of dirt and pipe scale in the bath, due to stainless steel construction.

Uniform pressures, adequate for rayon and mohair tops as well as for worsted, in all spindles.

Wide adaptability, with no need for special winding equipment as the machine takes any top.

Exceptional ease in unloading, simplified installation, great reduction in maintenance cost and saving in floor space — all due to refinements of design.

Engineering: Consult our Engineering Service without obligation on all problems of installation and operation of wet finishing, carbonizing and dyeing equipment. We manufacture a complete line of modern finishing equipment, including special equipment.

Catalog: Catalog Page 7, sent on request, lists unique and original advantages, with full description of operation and diagrams of efficient unloading arrangements.

The Fleet Line

A complete line of modern equipment to successfully handle present day wet finishing, carbonizing and dyeing requirements; available catalogs are listed below; will be sent on request; just use the coupon:

3—Piece Dye Kettles
4—Bleach and Dye Kettles for Tubular Knit Goods
5—Sample Piece Dye Kettles
6—Dye-Becks
7—Top Dye Kettles
8—Stock Dye Kettles
9—Continuous Cloth Washers
10—Cloth Washers
11—Soaping Systems
12—Soaping Machines
13—Fulling Mills
14—Squeeze Roll Extractors & Padders
15—Yarn Steamers & Conditioners
16—Derby Continuous Dry Cleaner
17—Cloth Dryers
18—Carbonizing Ranges
20—Continuous & Semi-Continuous Crushers
21—Progressive Jigs
23—Rolls & Reels
24—Tanks, Pails, etc.
25—Stainless Steel Trucks

RIGGS & LOMBARD, INC.

FOOT OF SUFFOLK ST., LOWELL, MASS.

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RIGGS & LOMBARD, Foot of Suffolk Street, Lowell, Mass.

Gentlemen: Without obligation, send us data on the finishing equipment indicated by these key numbers:

Name and Title .....

Company .....

Address .....

STRETCH OUT YOUR STAINLESS, TOO

There *are* ways to stretch out your supply of stainless.

For example, you may be using a grade or finish of stainless that is in extreme demand when another similar one, not as tight, could do the job adequately.

Our metallurgical staff and stainless fabricating specialists are ready to help you look into this matter and to advise you on more readily-available types of stainless that will do a satisfactory job. Feel free to call on us for this specialized help.

CRUCIBLE first name in special purpose steels

52 years of Fine steelmaking

STAINLESS STEEL

CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.

REZISTAL STAINLESS • REX HIGH SPEED • TOOL • ALLOY • MACHINERY • SPECIAL PURPOSE STEELS

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SUPERINTENDENT

Whether You Are...

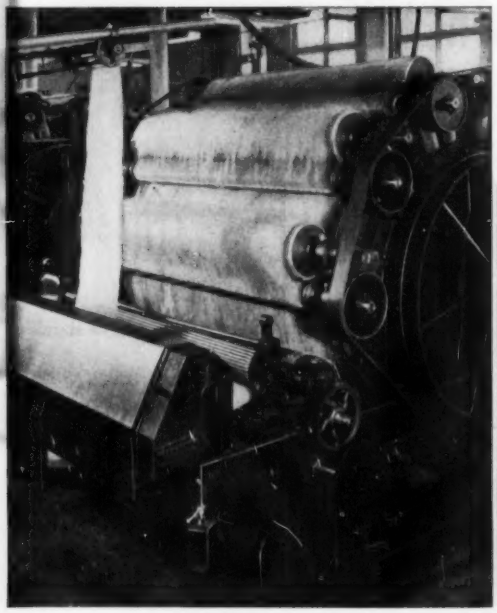
PURCHASING AGENT

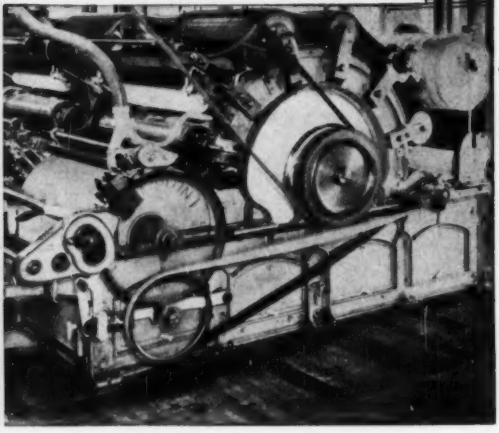
OVERSEER

The Quality of Your Card Clothing is vitally important

MANAGEMENT and PRODUCTION know that top quality card clothing means greater production, fewer down-hours, lower carding costs. **PURCHASING** knows that buying the best is the only real economy in the long run.

That's why those who have once used TUFFER, always reorder it. TUFFER means proved production performance.





HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Georgia and Gastonia, N. C. Branch: Philadelphia, Pa.

A-2 *Direct Representation in Canada*

. . . IT PAYS TO SPECIFY TUFFER CARD CLOTHING

One of three Cleveland special 70AT units driving a woolen card at one of the large textile mills in New Hampshire. The unit pictured drives the main card cylinder, stripper rolls and the fancy roll. There are powerful, right-angle Cleveland drives for every type of service.

Compact Cleveland drive is powerful, sure and safe

● Adequate aisle space is essential in a woolen mill—so units that drive woolen cards must be compact, yet powerful enough to do the job. That's why the Davis and Furber Machine Company of North Andover, Massachusetts, has made Cleveland Worm Gear Speed Reducers standard equipment on its new Model L carding machine.

In addition to allowing needed space between cards, Cleveland drives mean safer working conditions. Large diameter pulleys and flat belting, once a serious safety hazard, are eliminated.

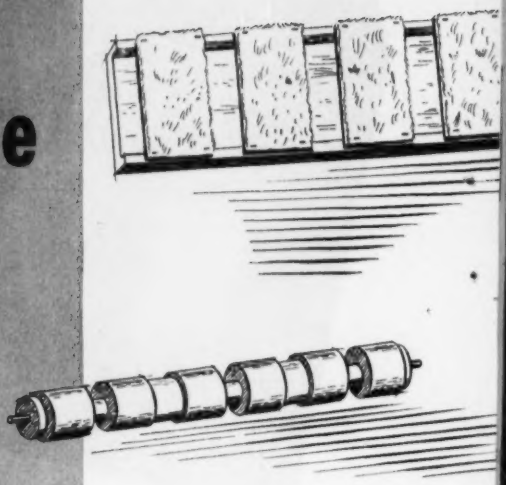
Cleveland is first choice for any job where a powerful, trouble-free, right-angle drive is desired. Engineers know from experience that they can depend on Cleveland, wherever they serve. They give satisfactory service, no matter how severe the conditions.

For specifications and other details, write for our current catalog. The Cleveland Worm & Gear Company, 3268 East 80th Street, Cleveland 4, Ohio.

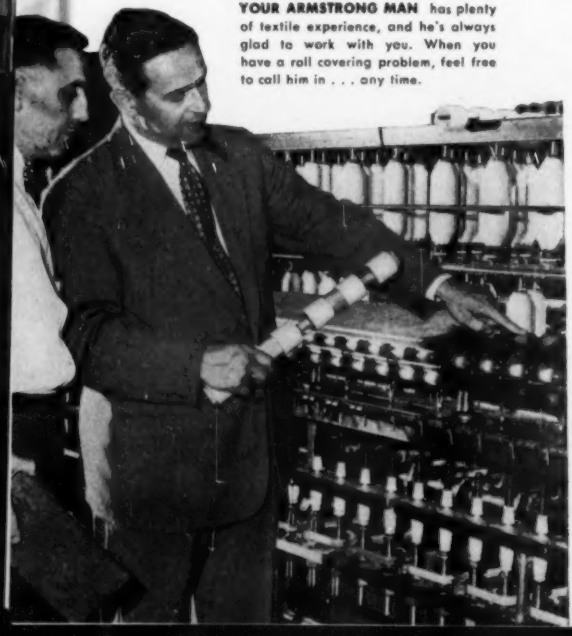
Affiliate: The Farval Corporation, Centralized Systems of Lubrication. In Canada: Peacock Brothers Limited.

CLEVELAND
Worm Gear
Speed Reducers

Remember this when you change to REVOLVING CLEARERS



Call your Armstrong man...be sure your



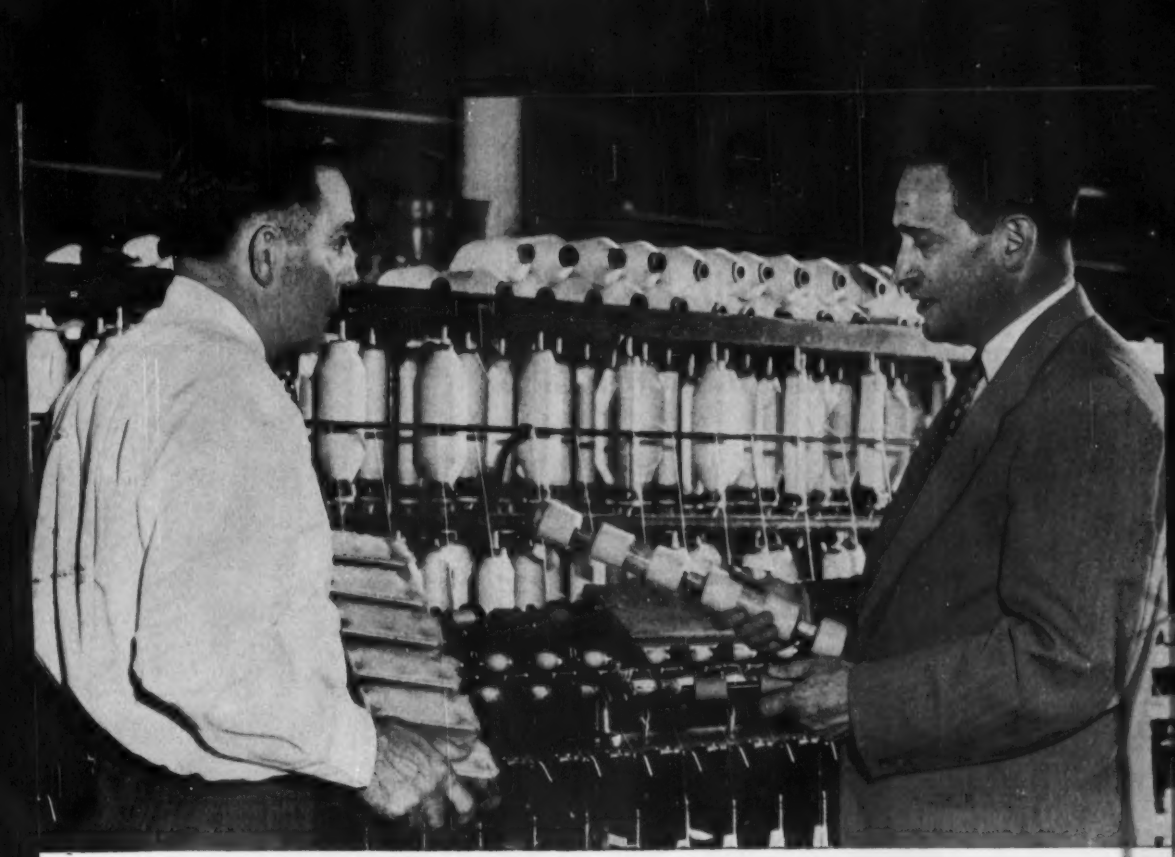
YOUR ARMSTRONG MAN has plenty of textile experience, and he's always glad to work with you. When you have a roll covering problem, feel free to call him in . . . any time.

When you're making a change from flat to revolving clearers, don't forget to check your cots. Roll covers originally chosen to pack waste far back on a flat clearer often cause excessive slubbing when used with revolving clearers.

A good way to be sure your roll covers will be right is to call in your Armstrong man *before* you make the change. He can tell you definitely whether or not your present roll covers will continue to give good performance with the new clearers.

Many mill men make a regular practice of talking over proposed changes with their Armstrong representative. Their reason is simple: again and again they've found he has the answers to their roll covering problems. And when new cots are needed, his specialized training, plus the completeness of the Armstrong Line, helps him supply exactly the roll cover you need.

ARMSTRONG'S

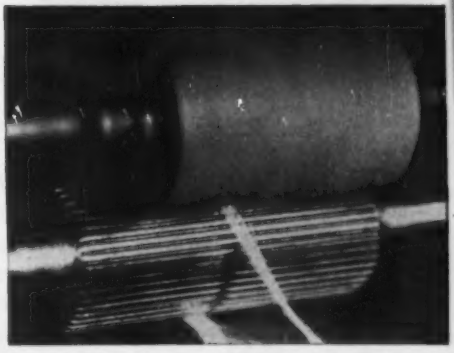


roll covers are right for revolving clearers

He has cork where cork is called for—and he has a variety of Accotex® Cots. Accotex Cots are made in straight rubber and in cork-and-rubber combinations. Each formulation comes in a wide range of firmness to give you the right cushion for your particular work. And every Accotex Cot contains "electrolytes" to reduce lapping.

So remember, when you have a roll covering problem—whether it's routine maintenance, a change in equipment, or an emergency—be sure to call on your Armstrong man. In most cases, he'll be at your mill within 24 hours after your call.

If an Armstrong man doesn't call on you regularly, please write us and we'll put you in touch with the nearest one. Armstrong Cork Company, Textile Products Department, 8311 Arch Street, Lancaster, Pennsylvania. All Accotex products are available for export.



THIS LONG-WEARING ACCOTEX COT RESISTS LAPPING
It's 20 seconds since the roving broke—and it still hasn't lapped! The reason is built right into the Accotex Cot. It contains certain electrolytes that remove the basic cause of lapping—attraction between electric charges in the moisture layers on the cot and fiber. With many covers, lapping occurs almost instantly—but Accotex gives the yarn time to reach the scavenger roll before lapping can occur.

ACCOTEX COTS

"Tycol Alweave cuts power consumption... lessens tube loss... lowers equipment down time"

Check! Tycol Alweave Textile Oils reduce thread breakage —hold spindle drag and bolster losses to a minimum. Their high stability and easy scourability let mills operate at top production speeds, with far fewer stoppages.

Specially designed Tycol Alweave Oils are available in a wide range of both mineral and compounded grades. They'll step up efficiency in every mill process.

Learn more about Tycol Alweave Oils. Get in touch with your nearest Tide Water Associated office today.

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INDUSTRY'S ALL-TIME FAVORITE FOR LONG RANGE *Economy*

JENKINS
Fig. 106-A
Renewable Composition Disc

BRONZE GLOBE VALVE

150 lbs. Steam
200 lbs. O.W.G.

Take a Jenkins Fig. 106-A apart. It's easy to see why it is industry's all-time favorite. Note the liberal dimensions of body and bonnet casting — the heavy, manganese bronze spindle, with more strong threads in contact with the bonnet, regardless of spindle position. See how the slip-on, stay-on disc holder fully protects the edge of the disc, prevents creeping, flaking, or cracking.

Every part, from perfect grip, heatproof handwheel to pipe ends, reflects the designing skill of Jenkins valve *specialists.* There's a good reason. Jenkins Bros. introduced the *first* renewable composition disc valve, — is today the only manufacturer of both valves *and* discs.

Fig. 106-A not only looks better — it proves out better in performance. In any comparison, its long life, low upkeep record has never been surpassed. That is the true measure of valve cost — and it is the reason why industry's shrewdest buyers will settle for nothing less than Fig. 106-A quality.

JENKINS VALVES

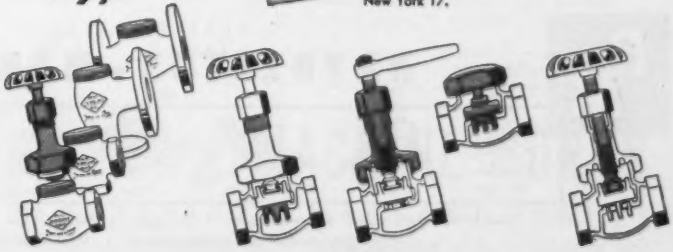
LOOK FOR THE DIAMOND MARK

SINCE 1864 TRADE JENKINS MARK

Jenkins Bros.

GET THIS FOLDER — Gives details of Fig. 106-A design, and "family" interchangeability. Ask your Jenkins Distributor for Form 189-A, or write Jenkins Bros., 100 Park Ave., New York 17.

Fig. 106-A "Family" interchangeability meets 90% of your valve needs with a small inventory of parts. Start with the standard Fig. 106-A. Trimming is interchangeable in Globe or Angle body, screwed or flanged. With a few parts, quickly-assembled combinations provide a Lift Check, a Spring-loaded Check, and valves for Stop and Check, Quick-opening, or Throttling service.



"DOWNTIME-SAVERS"

Condor V-BELTS

You save downtime for belt take-up and belt replacement when you use Condor V-Belts. There are good reasons . . . Condor V-Belts are destretched and balanced by R/M engineering during manufacture . . . and they are made with straight sidewalls for more grip. As a result, each Condor V-Belt in a multiple drive pulls its share of the load without stretching, sagging or slipping. That's why, all Condor V-Belts run longer, save time and money • Bulletin 6868-E, "Grips the Grooves," describes other advantages of the "Smoothest Running V-Belts Made." Write for it, or call your R/M Distributor.

RM

MANHATTAN RUBBER DIVISION—PASSAIC, NEW JERSEY

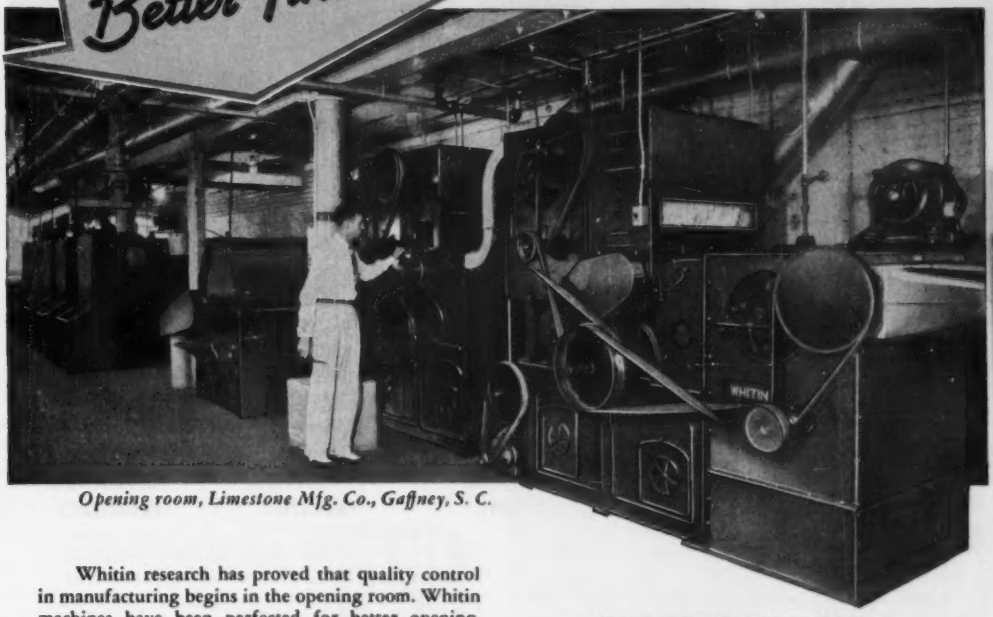
RAYBESTOS-MANHATTAN, INC.

Other R/M products include: Industrial Rubber • Fan Belts • Radiator Hose • Packings • Brake Linings • Brake Blocks Clutch Facings • Asbestos Textiles • Sintered Metal Parts Bowling Balls

For more information, write direct or use Reader Service post card.

A *Good Start* insures a *Better Finish*

Quality starts with WHITIN Opening Machinery



Opening room, Limestone Mfg. Co., Gaffney, S. C.

Whitin research has proved that quality control in manufacturing begins in the opening room. Whitin machines have been perfected for better opening, blending and cleaning. You can cut processing costs and improve product quality by installing modern Whitin opening equipment.

BLENDING FEEDERS

With two or more Whitin Blending Feeders, a large number of bales can be used for making a more thorough, more accurate blend or mix of well opened stock. The machine is simple to operate, easy to adjust and maintain. Capacity up to 200 lbs. per hour.

MIXING FEED TABLE

A uniform sandwich stock mix, automatically controlled, is made on the Mixing Feed Table. A floor type conveyor, it delivers the stock from a battery of Blending Feeders to a Cleaner, Overhead Condenser, or Picker as required. Available in any desired length.

SPIRAWHIRL BUCKLEY CLEANER

The Spirawhirl is an indispensable machine for opening and cleaning all types of cotton without damage to the fibers. The amount and character of the waste removed by the eight adjustable grid bar sections is easily controlled. Recommended production is up to 1000 lbs. per hour.

DOWNSTROKE BUCKLEY CLEANER

Generally used to follow the Spirawhirl, the 24" Downstroke Buckley Cleaner loosens and extracts large motes, leaf and dirt without breaking the waste into small particles. Recommended production up to 1000 lbs. per hour.

FLEXIBILITY OF UNITS

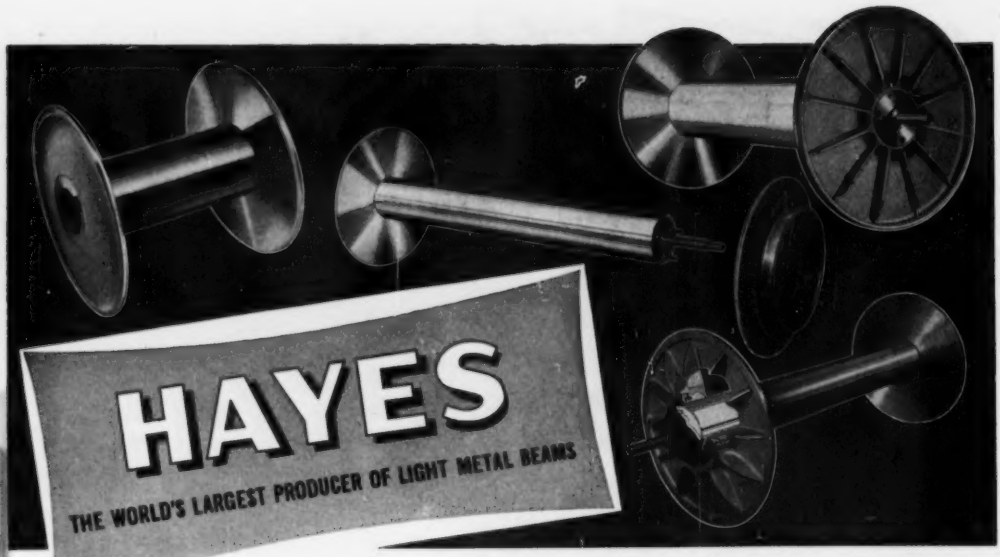
These machines together with Cage Sections and Overhead Condensers, can be flexibly arranged to make any arrangement of the opening line required by the type of stock processed or the physical layout of the plant.

For more detailed information, consult your nearest Whitin representative, or write to the Advertising Dept., Whitinsville, Mass. for descriptive catalogs.

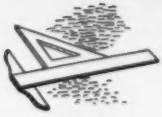
Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

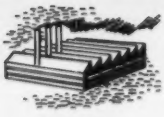
CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.



offers you . . .



SKILLED DESIGNING TALENT



MODERN PRODUCTION FACILITIES

PRACTICAL FABRICATING EXPERIENCE

For many years Hayes Industries has manufactured light weight metal parts for the aircraft industry where advanced manufacturing techniques and exacting precision standards must be maintained. Long experience in fabricating aluminum and magnesium parts has been instrumental in helping to produce textile beams that are light in weight, true running and perfectly balanced. Hayes Light Metal Beams have combined correct design and advanced manufacturing techniques to give you working surfaces that are machined to precise limits permitting sustained production. These working surfaces are perfectly smooth, splinter free and rust proof, requiring practically no maintenance, producing better selvages and reducing rejects to a minimum. Hayes Beams can be taken apart for replacement of damaged parts. Through long and intimate association with the textile industry, Hayes has developed a skilled engineering staff whose services are available to help solve your individual problems.

HAYES MODERN PLANT FACILITIES PRODUCE

Light Metal Loom Beams
Light Metal Adjustable Loom Beams
Light Metal Section Beams
Light Metal Tricot Beams
Light Metal Replacement Loom Beam Barrels

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J. Paul Laird
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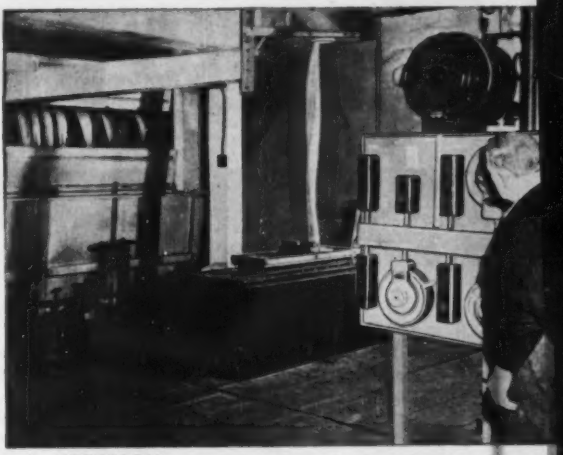
CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY

You can judge it by the men who specify it

Cutler-Hammer Motor Control is so frequently the specified choice of mills staffed with able technical men that the record is most convincing. These men know Cutler-Hammer dependability is no mere competitive claim. They know it is the earned advantage of the longest and most intensive specialization in motor control engineering. They have seen its proof stand out clearly in Cutler-Hammer Motor Control performance . . . over the entire range of textile control requirements from the simplest starters to the most complex electronic equipment. These men know *both* motor control and textile production needs. Their continued preference for Cutler-Hammer can mean nothing less than continued satisfaction. Judge Cutler-Hammer Motor Control by the men who specify it!

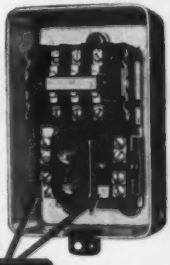
You too will find it pays to insist on Cutler-Hammer Motor Control and refuse all substitutes. An adequate network of Authorized Cutler-Hammer Distributors throughout the textile manufacturing areas insures prompt attention and supply. CUTLER-HAMMER, Inc., 1457 St. Paul Avenue, Milwaukee 1, Wisconsin.



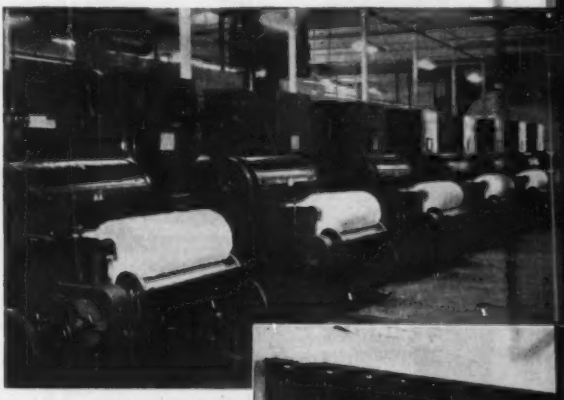
for PEPPERELL at Lewiston, Maine, where Cutler-Hammer Control is used at all steps of the continuous peroxide bleaching process.

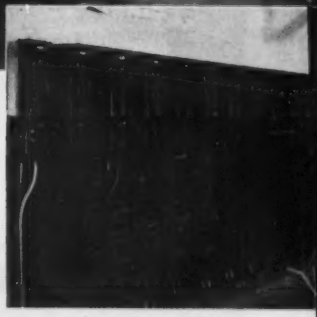
CUTLER-HAMMER EUTECTIC ELEMENT OVERLOAD PROTECTION

One of the most ingenious and useful inventions of all time, Cutler-Hammer Eutectic Element Overload Protection accurately duplicates, measures and responds to heating effect produced within the motor. The world's most widely used and the world's most dependable motor overload protection, not only permits the motor to work *closer* to capacity in all cases but to do so in perfect safety. A standard feature of Cutler-Hammer Control.

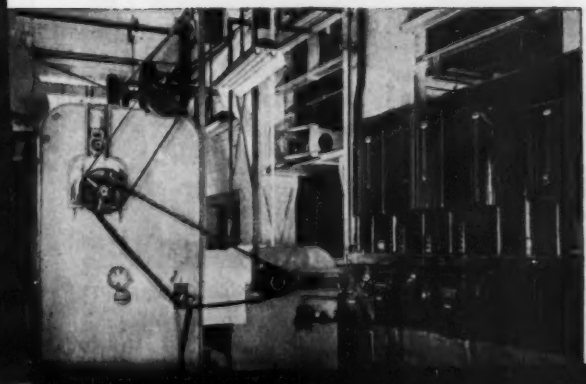


CUTLER-HAMMER
MOTOR CONTROL
C-H





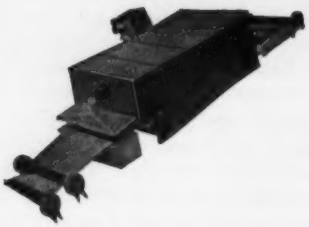
for EXPOSITION at Atlanta. Cutler-Hammer Safety Switches and Automatic Starters shown at the right serve the pickers shown above. Cutler-Hammer Control is also used in opening, cleaning, on drawing machines, roving frames . . . on through to the looms in this great mill.



for CRANSTON at Webster, Mass. You will find Cutler-Hammer Control on the continuous peroxide bleaching range . . . in fact on all finishing ranges in this plant.

7 NEW PROCTOR

PROCTOR Air Slasher DRYER



- Most economical slasher you can buy—from standpoint of initial investment and operating cost.
- Combination of wet-splitting of the warp at the entering end and its passage over the Proctor patented paralleled air flow nozzles results in the highest capacity and best quality yarn with minimum tension of any known air slasher on the market today.
- High capacity slasher dryer for cotton, wool, spun synthetics and blends . . . productions up to 1000 lbs. per hour.
- Latest in housing design offers complete accessibility for cleaning and maintenance!
- Proctor can engineer and furnish any part or all of your slasher range!

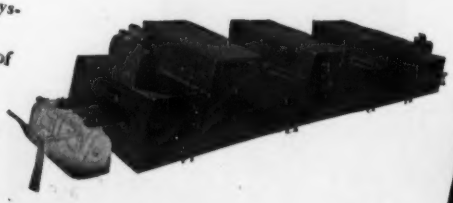
PROCTOR TENTER HOUSING

- With this new Proctor housing as a replacement for out-of-date equipment you can, in many cases, increase finishing department output 50 to 100%.
- Completely redesigned heating and fan system provides:

  Greatest drying capacity ever—per foot of length

  Maximum air movement

  Adjustable air circulation to suit individual conditions
- This vastly improved, streamlined tenter housing is offered to you at NEW LOW COST. Investigate its possibilities for your mill today!



MACHINES YOU CAN'T AFFORD TO OVERLOOK

PROCTOR LOOP DRYER-CURER

- Thoroughly re-designed to provide the finest loop dryer ever offered to the Textile industry.
- Proctor latest concept in loop dryer air movement makes possible:
  - Maximum production with minimum power requirements
  - Even drying for wide variety of fabrics
  - Circulating air adjustable to suit drying conditions
- Lint screens and readily accessible heater coils reduce cleaning time to a minimum.
- Direct motor driven fans eliminate expensive maintenance of couplings and belts.
- Priced substantially below present models.

PROCTOR ROLLER DRYER

Designed for use in pad-dye range, as pre-dryer prior to tenter or for efficient curing of lightweight fabrics . . . utilizes meticulously balanced air circulation.

PROCTOR AIRLAY DRYER

A high capacity slack drying machine. Improved air circulation and newly designed bearings make this machine ideal for all slack finishing.

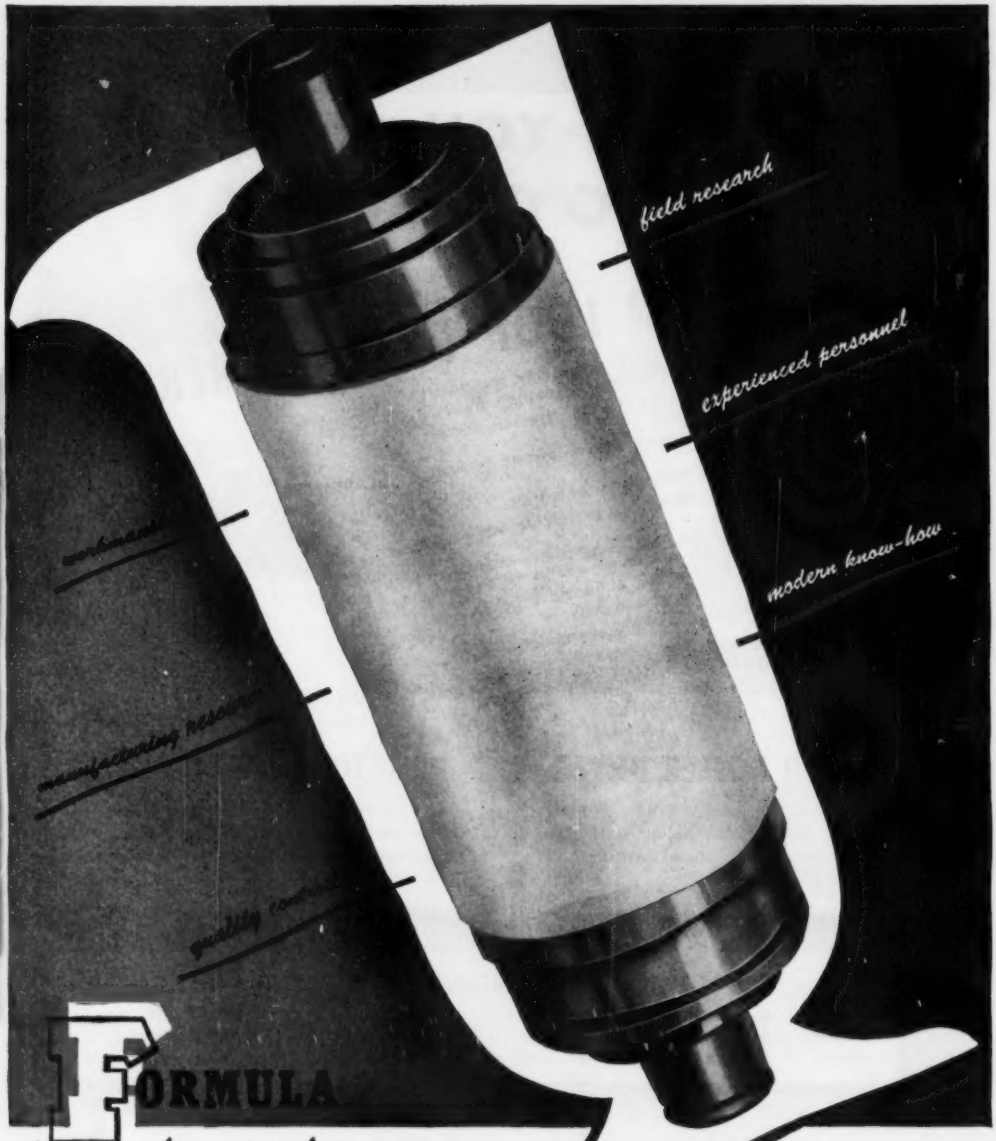
PROCTOR *Continuous Bleach for* TUBULAR KNITS

Absolute minimum of tension in both washing and steaming operation . . . accurate control of cloth temperature . . . no tangling of material . . . a continuous operation with the minimum in operation attention.

PROCTOR SYSTEM *for* PROCESSING FABRICS IN LIQUID

Tensionless system of wet processing cloth in rope form with absolute control of volume in each compartment. Operational attention is at a minimum due to the automatic control design.

PROCTOR & SCHWARTZ INC • 710 TABOR ROAD • PHILA 20 • PA •



FORMULA

for performance . . .

. . . NOT SPECULATION

when you specify PERKINS Rolls. PERKINS Rolls have behind them the longest and broadest experience in the Roll-making industry.

B. F. PERKINS & SON, inc.

Engineers and Manufacturers

HOLYOKE • MASS.

LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

Ask yourself these speed reduction questions . . .

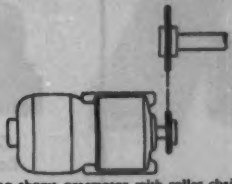
1 Do I want high-ratio reduction with right-angle takeoff?

Drawing shows motorized P.I.V. variable speed and worm gear drives direct-coupled.

Then your answer is a LINK-BELT Worm Gear Drive

Reduction ratios: 3.1:1 to 8000:1
Torque: 1,400 to 123,000 in. lbs.
Output shaft rpm: 0.22 to 564

2 Is space at a premium?

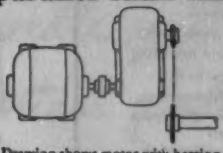


Drawing shows gearmotor with roller chain drive.

Then your answer is a LINK-BELT Gearmotor

Reduction ratios: 6.2:1 to 292:1
Hp range: 1 to 30
Output shaft rpm: 6 to 280

3 Will I need high hp capacity with parallel shaft takeoff?



Drawing shows motor with herringbone gear and roller chain drives

Then your answer is a LINK-BELT Herringbone Gear Drive

Reduction ratios: 2.84:1 to 318:1
Hp range: ½ to 1000
Output shaft rpm: 2 to 600

Yes, LINK-BELT builds all 3

WHATEVER factor governs your speed reducer selection—ratio, space, shaft position, shock loading—you can get the exact answer to your needs from Link-Belt's complete line of enclosed gear drives.

For Link-Belt builds a full range of sizes and ratios in all three types—Helical, Herringbone and Worm. When a Link-Belt power transmission engineer analyzes your conditions, he can recommend the specific drive to meet your specialized requirements.

For complete information, call the Link-Belt office near you.

LINK-BELT

ENCLOSED GEAR DRIVES

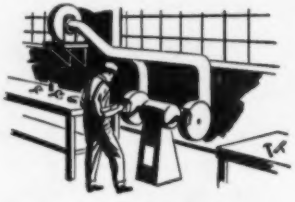
LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in Principal Cities. 12,889

American Blower... a time-honored name in air handling

Philadelphia has a conveniently located American Blower Branch Office to provide you with data and equipment for air handling. You can reach American Blower in Philadelphia by calling Rittenhouse 6-8873. In other cities consult your phone book.

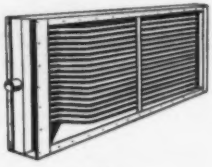
EMPLOYEE COMFORT

Fresh, invigorating air, indoors, does much to increase employee morale and efficiency. American Blower Ventura Fans are ideal for the job. They're attractively streamlined propeller fans with smooth-flowing lines that harmonize well with modern business interiors. Wiring is fully enclosed for safety. A square mounting panel makes them easy to install. All Ventura Fans are sound-rated and capacities are Certified.



ABRASIVE MATERIALS

If you've found dust from grinding machine operations hard to handle, American Blower Type V Fans are well worth investigating. The heavy cast-iron housing of Type V fans easily withstands the wear of hard, gritty, abrasive materials. Also, their volume and pressure range is more than adequate to handle the normal requirements of this type of work. Remember, good ventilation is good business.



HEATING COILS

Current demands for heating from business and industry are greater now than ever before – a good reason to take early action on American Blower Heating Coils. Whether you need coils for use in blast heating or zone reheating – you'll find the size and type to fit your needs in the American Blower line. All tubing is helically wound with copper or aluminum fins in 3 standard spacings. Casings are heavy galvanized steel; headers are die-formed steel.

YOUR BUSINESS

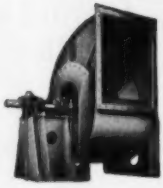
Whatever your needs, American Blower heating, cooling, drying, air conditioning and air handling equipment will improve over-all comfort and efficiency in your business. For data, phone or write our nearest branch office.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO
Division of American Radiator & Standard Sanitary corporation

Unit Heaters

Ventura Fans

Centrifugal Compressors

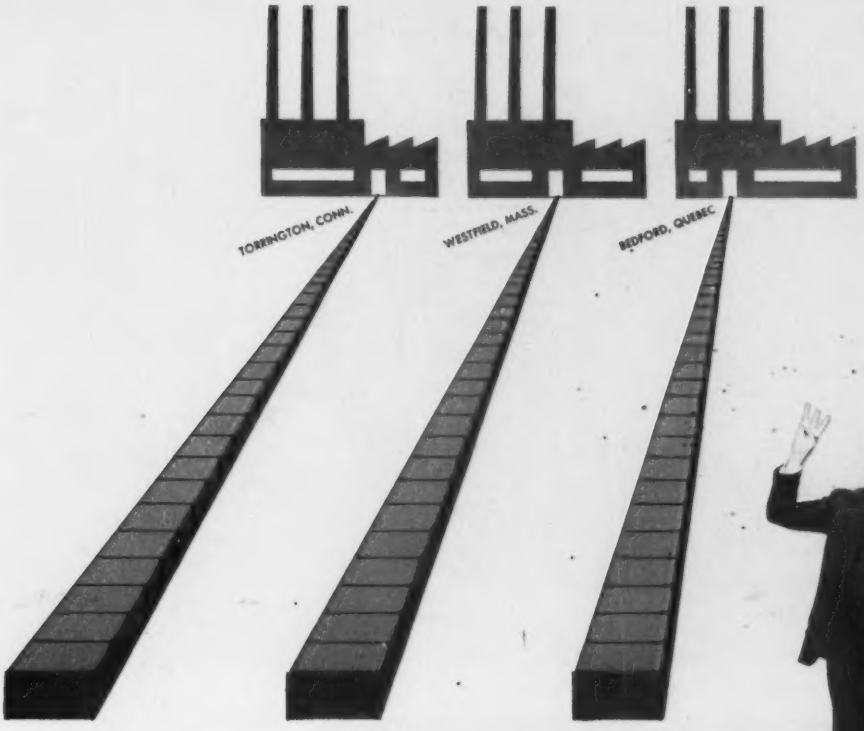


Industrial Fans

Utility Sets

YOUR BEST BUY **AMERICAN BLOWER** AIR HANDLING EQUIPMENT

Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON



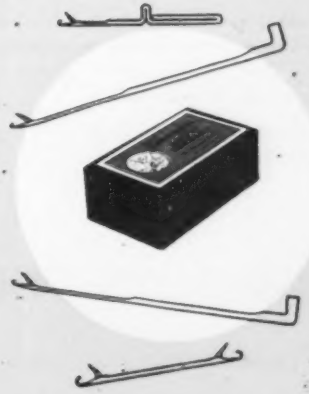
TORRINGTON

meets your needle requirements— with 3 important production centers—

When you specify "TORRINGTON," you secure the services of three complete needle manufacturing plants . . . each equipped and staffed to deliver your every requirement for top quality needles.

This large volume production, plus Torrington's established large-scale buying of essential raw materials, are your best assurances of dependable needle service at all times.

call* TORRINGTON *for quality needles backed by dependable service



THE TORRINGTON COMPANY, Torrington, Conn., U.S.A.
Established 1866
Branches: New York • Philadelphia • Chicago • Boston • Greensboro, N. C.
St. Louis • Bedford, P. Q.—Toronto, Canada. • *Pacific Coast Representative:*
E. G. Paules, 1762 West Vernon Ave., Los Angeles 37, California.
Broadgate House, 7-10 Eldon St., London E. C. 2, England.

light weight carries the load

Torrington Needle Bearings are light in weight, compact. They effect weight and space savings in housings and other related parts—*without* sacrificing strength or efficiency.

The reason is simple: Needle Bearings have greater rated radial load capacity in relation to size than any other type of anti-friction bearings.

So if your design needs a bearing light in weight to handle heavy loads, investigate the advantages of Torrington Needle Bearings. Our engineers will welcome the opportunity to assist you.

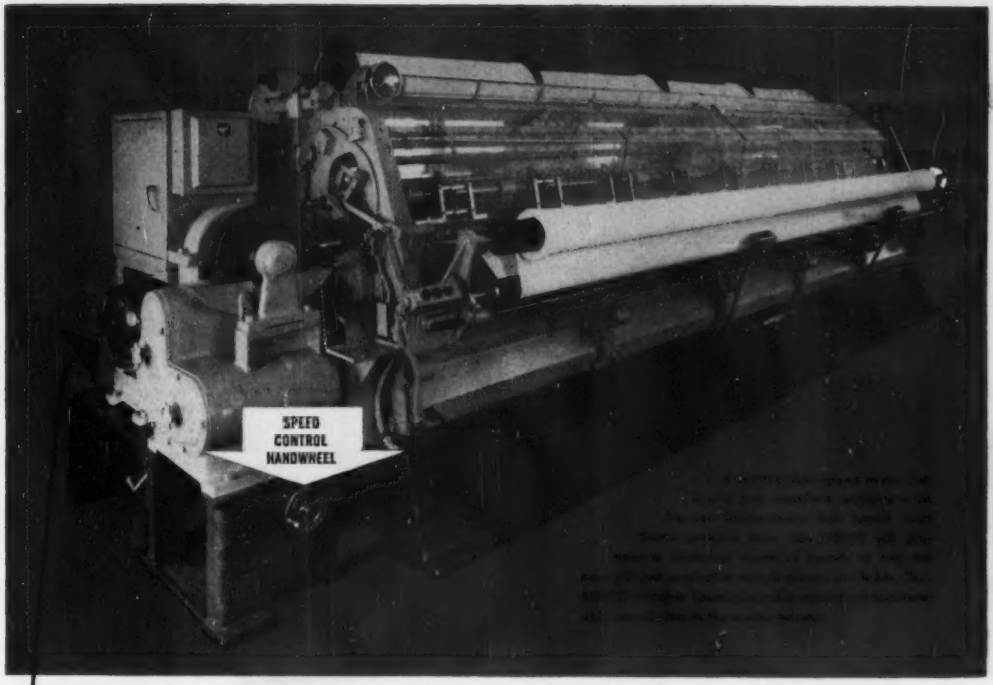
THE TORRINGTON COMPANY

Torrington, Conn. South Bend 21, Ind.

District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON *NEEDLE* **BEARINGS**

Needle • Spherical Roller • Tapered Roller • Straight Roller • Ball • Needle Rollers



The Three Basic Reeves Units

VARIABLE SPEED TRANSMISSION provides infinite, accurate, stepless adjustability over a wide range—as high as 16 to 1. Sizes to 87 hp.

VARI-SPEED MOTOR PULLEY converts any standard, constant-speed motor to a variable speed drive. Speed variations to 4 to 1. Sizes to 10 hp.

VARI-SPEED MOTODRIVE (R) combines motor, speed-changing mechanism and gear reducer in one unit. Speed variations as great as 10 to 1. Sizes to 25 hp.

Better Fabrics for Less...with REEVES Variable Speed Control!

Throughout the textile industry, REEVES Variable Speed Drives are at work—bringing about uninterrupted, high-speed production . . . uniformly higher quality . . . and lower costs! REEVES units are in operation on virtually every type of machine used in the preparation, fabrication, spinning, twisting, or finishing of yarn or cloth. They provide the close control of speed necessary to accommodate variations in texture, weight, temperature, humidity, or operator skill.

Naturally, no one type of unit can be the most efficient for every speed control problem. So REEVES offers a complete line—three basic units, each available in a wide range of designs, sizes, capacities, and speed ratios . . . controlled with the turn of a handwheel, the touch of a button, or automatically, without stopping production.

A REEVES field engineer, thoroughly familiar with textile mill operations, will be glad to meet with you to discuss your particular speed control needs. Write for his name and for your *free* copy of Bulletin No. W79a-G.

REEVES PULLEY COMPANY • COLUMBUS, INDIANA

Recognized Leader in the Specialized Field of Variable Speed Control

accurate · variable

REEVES *Speed Control*

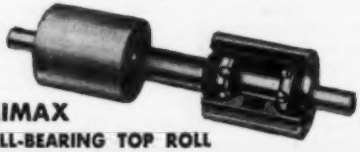
 For more information, write direct or use Reader Service post card.

Advantages of CLEANDRAFT Rolls—

- eliminates all oiling expense.
- greatly reduces picking cost; cycle extended to as little as once in several weeks.
- gives cleaner yarn free from oil.
- improves quality of yarn.
- increases yarn breaking strength.

for Cotton and Short Staple Synthetics

Whitin has already previously adopted CLIMAX
Ball-Bearing Top Rolls as standard where *anti-friction* rolls are specified.



CLIMAX
BALL-BEARING TOP ROLL

Climax Rolls on front line form an ideal combination with Cleandraft Rolls on middle and back lines for spinning and roving. Under some circumstances, Climax Rolls are advantageous for all three lines.

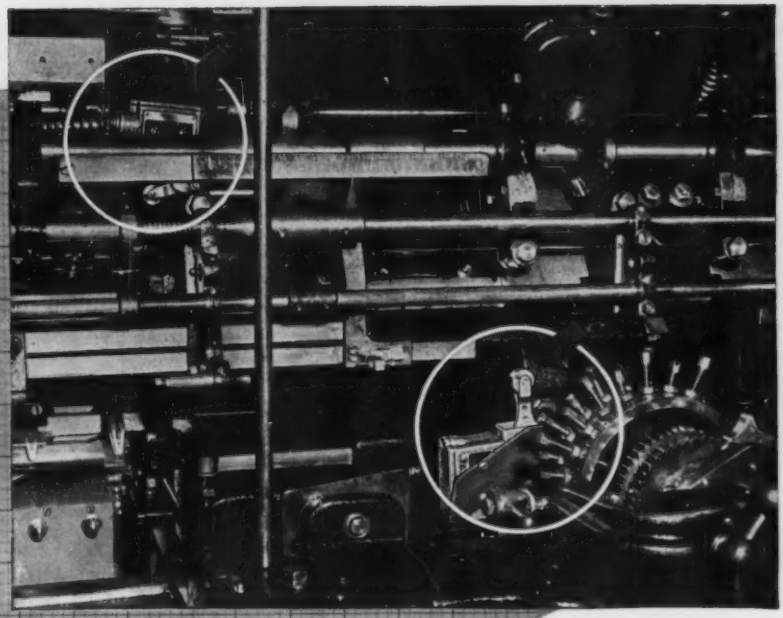
FOR FURTHER INFORMATION ADDRESS

PRODUCT SALES, INC. 21 VERNON ST., WHITMAN, MASS.

CLEANDRAFT TOP ROLLS ARE MADE BY INDUSTRIAL PLASTICS, INC., WHITMAN, MASS.
CLIMAX TOP ROLLS ARE MADE BY MACHINECRAFT, INC., WHITMAN, MASS.
FOREIGN REPRESENTATIVES IN THE PRINCIPAL

CLEANDRAFT AND CLIMAX ROLLS ARE OBTAINABLE FROM WHITIN MACHINE WORKS AND ITS AGENTS.

In photo (right), the MICRO switch in upper left is located on the carrier rack to prevent operation in case of misadjustment of the carriage. MICRO switch at lower right shuts off power if narrowing fingers come too close together so as to endanger needle bed.

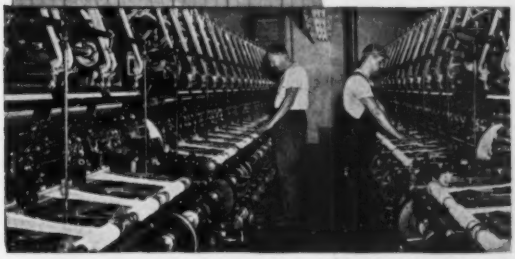


"Since installing these two MICRO switches we have had no record of needle breakage"

SAYS L. H. Prinz, plant engineer of Skyland Hosiery Mill, Asheville, N. C.

Not only have these MICRO switches eliminated needle breakage but, according to Mr. Prinz, they have also reduced the danger of jams on the carrier rack that can cost from $500 to $2000 to repair!

Skyland's engineer installed one switch on the carrier rack in such a way that it stops the machinery at once in the event of any misadjustment or mechanical failure on the part of the carriage. The other switch, known as the narrowing frame switch, operates to stop the machinery if the narrowing fingers approach each other too closely so as to tear up the needle bed.



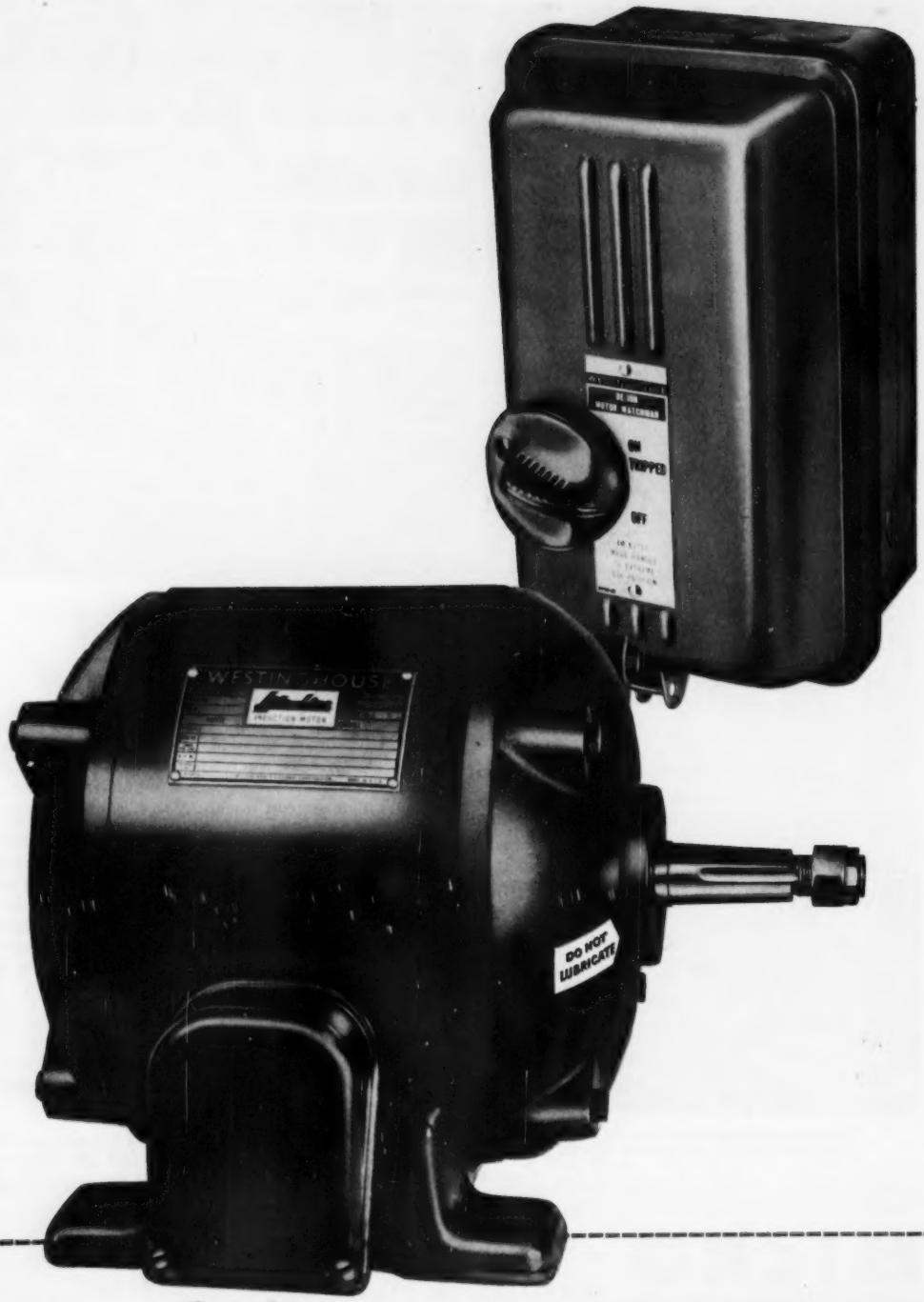
View of a portion of the Skyland Hosiery Mill at Asheville, N. C., showing carriers and frames which are protected by MICRO precision switches.

Plant engineers in many textile mills are finding that the installation of MICRO precision switches at strategic points is the most economical way of making present textile equipment safer, more automatic and capable of higher production.

There is a MICRO authorized distributor located near you with a wide variety of MICRO precision switches from which to select just the switches best suited to your equipment needs.

MICRO
MAKERS OF PRECISION SWITCHES
FREEPORT, ILLINOIS

A DIVISION OF
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY



WHAT *Life-Lines* REALLY DELIVER IS MORE SERVICE...LESS SERVICING

The way to lick lint and dust is to keep it out!

And here's a drive team that really keeps it out!

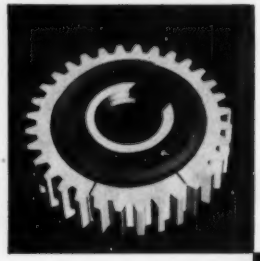
Look at the extra features of the Loom Motor Starter. A special neoprene gasket forms a positive, continuous seal between case and cover. Pressure from cover-retaining screw makes sure every crevice is filled with pliable neoprene. It's the only starter approved by the Associated Factory Mutual Fire Insurance Companies.

And check the extras on the totally enclosed Loom Motor, too. No chance for lint or dust to clog windings. Notice, too, there are no greasing nipples or cups on the motor. Pre-lubricated, factory-sealed bearings need no lubrication. Thus, outages from both lint clogging and improper lubrication are eliminated.

Together these two make the best drive team for your weave-room equipment. Maintenance has been practically engineered out. Ask your Westinghouse representative for a free copy of, "Motors and Controls in the Textile Industry". Thirty-six well-illustrated pages show how to overcome problems in drive selection. Ask for B-5422, or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. J-21696

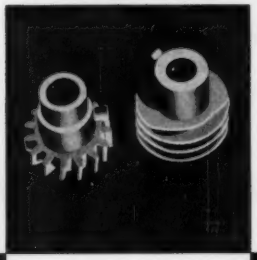
YOU CAN BE SURE...IF IT'S
Westinghouse
Life-Line
MOTORS and CONTROLS

How's YOUR supply of Loom Parts?



CRANK SHAFT GEAR, a machine cut gear that is split (or Batex) for easy installation.

BTM PART No. 21902-X

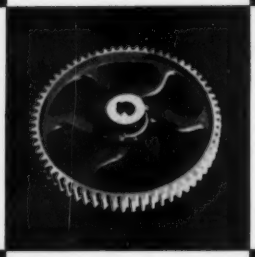


CLOTH ROLL GEAR and WORM. Steel hardened and ground bore. Lasts the life of the loom.

BTM PARTS No. 2414-S & 3018-S

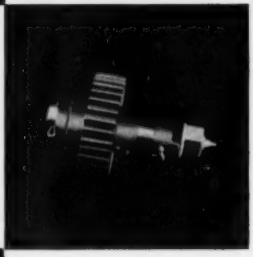
CAM SHAFT GEAR with precision machine cut teeth. Gives outstanding service.

BTM PART No. 66931



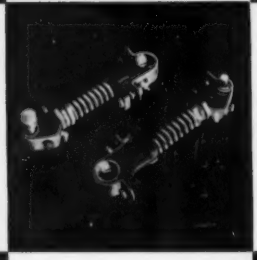
IDLE GEAR ASSEMBLY with 54198-H stud collars, nuts and washers. Brass bushing. Hardened and ground stud. Alemite fitting.

BTM PART No. 3003-XK



FILLING CAM FOLLOWER complete with ball bearing. Hardened and ground steel stud.

BTM PART No. 16818-X

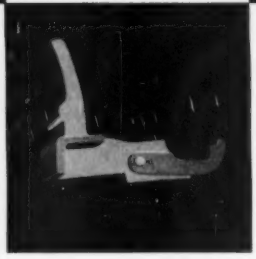


SPRING CRANK ARM, complete with 58938 Crank pin (replacement for Wood Crank arms).

BTM PART No. 67848-A

THREAD CUTTER with hardened and ground steel blade. Cuts keener, wears longer.

BTM PART No. 3625-D



TREADLE ROLL, antifriction ball bearing, grease packed. Eliminates fire hazard.

BTM PART No. 68092

Check your needs THESE BAHAN PARTS GIVE *longer service!*

Keep your parts supply complete. Don't let the need of some critical part disrupt your production schedule. Bahan can make immediate shipment of these and other Bahan loom parts. Order fill-ins for your stock today!

BAHAN TEXTILE MACHINERY CO., Inc.

DESIGNERS AND MANUFACTURERS OF RELIABLE TEXTILE MACHINERY FOR OVER 30 YEARS

Greenville, South Carolina

How to eliminate packaging nightmares

Sturdy, colorful H & D PREPAKS protect products and profits alike. They banish the costly nightmares of goods damaged in transit. They eliminate the need to repack for retail delivery.

This attractive PREPAK® stimulates sales at point-of-decision. Handsomely printed in brown and black on white linen-finish corrugated board. Product facts are prominently featured to assist the sales personnel.

H & D can eliminate your packaging nightmares too. Practical merchandising packages provide protective strength, lightweight, easy packing, compact storage, dual use. Write for the 14-volume "Little Packaging Library." Hinde & Dauch, 5205 Decatur Street, Sandusky, Ohio.

H&D

HINDE & DAUCH

Authority on Packaging

"Buffalo" *Tips on Getting the Best Service from your* **Fans**

3 Types of FANS—

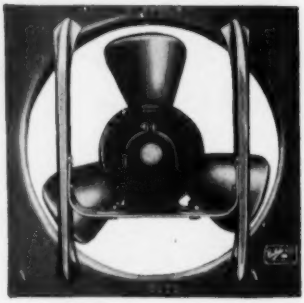
and what each can do for YOU

FOR MATERIAL CONVEYING FOR HEAVY DUTY EXHAUST

"Buffalo" Industrial Exhausters are built for the specialized "workhorse" jobs of exhausting and pneumatic conveying. Heavy steel plate, with all joints welded for maximum strength and minimum weight. Rivet-free interior surfaces plus specially shaped blades mean high efficiency. Pick the right fan for your job, and save money. WRITE FOR BULLETIN 3576 for all the facts on "Buffalo" Industrial Exhausters.

FOR LOCAL VENTILATION ANYWHERE, AT LOW COST

Often a number of small, inexpensive fans will do the job! "Buffalo" BREEZO Fans, for instance, are easily installed in walls, and provide excellent ventilation at negligible cost. Place these rugged, quiet-running fans wherever needed. 6 sizes, 500 cfm to 5500 cfm. WRITE FOR BULLETIN 3222-F for the facts on BREEZO and other "Buffalo" Disk Fans for top performance.



FOR FURNACE BLOWING—FOR GAS LINE BOOSTING—CLEANING OPERATIONS

Still another type of work fan, the "Buffalo" "E" Blower-Exhauster is efficient on moderate pressure jobs—supplying air to small furnaces, cleaning tools, etc. Note how compact this one-piece unit is. It is inexpensive to install and easy to maintain.. BULLETIN 3014-C gives ratings and information on all models. Write for your copy and be sure of picking the best fan for economy and long life.

"Buffalo" FIRST FOR FANS

BUFFALO FORGE COMPANY

184 MORTIMER ST. BUFFALO, NEW YORK

PUBLISHERS OF "FAN ENGINEERING" HANDBOOK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont. Sales Representatives in all Principal Cities

VENTILATING | PRESSURE BLOWING AIR CLEANING | COOLING AIR TEMPERING | HEATING INDUCED DRAFT | FORCED DRAFT EXHAUSTING

your pulleys will drive your machines only as well as your belts drive your pulleys

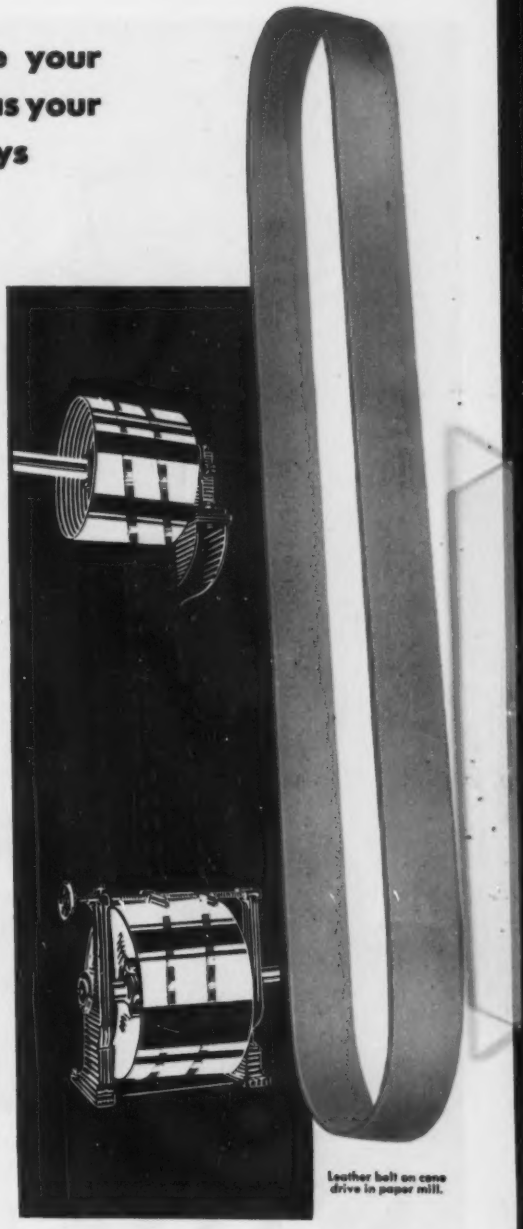
if you want more production get GRATON AND KNIGHT leather belting for more production power

Get a Graton & Knight "Live Traction" Leather Belt — because it is engineered to transmit maximum uniform horsepower at correct speeds and sustained R.P.M. — with ample reserve for load peaks, and "fluid drive action" to absorb starting torque and load shocks.

For tough conditions, cross, shifter and idler drives, **HEART OAK** top grade center stock oak tannage. For short center, small pulley, cone pulley and serpentine *precision* drives, **RESEARCH®** premium quality. For ambient conditions (steam, oil, water, acid and alkali fumes) **SPARTAN®** combination tannage . . . Whatever your conditions, you'll get more production-power with Graton & Knight *Engineered* Leather Belting.

and keep your belts pulling for you
Stop belt slippage — prolong belt life with GRAKO® CLEAR Belt Dressing, result of 100 years experience in leather tanning and belt manufacture. Preserves and lubricates the fibres. Pint, quart and gallon cans—5-gallon and 30-gallon drums. Send for circular.

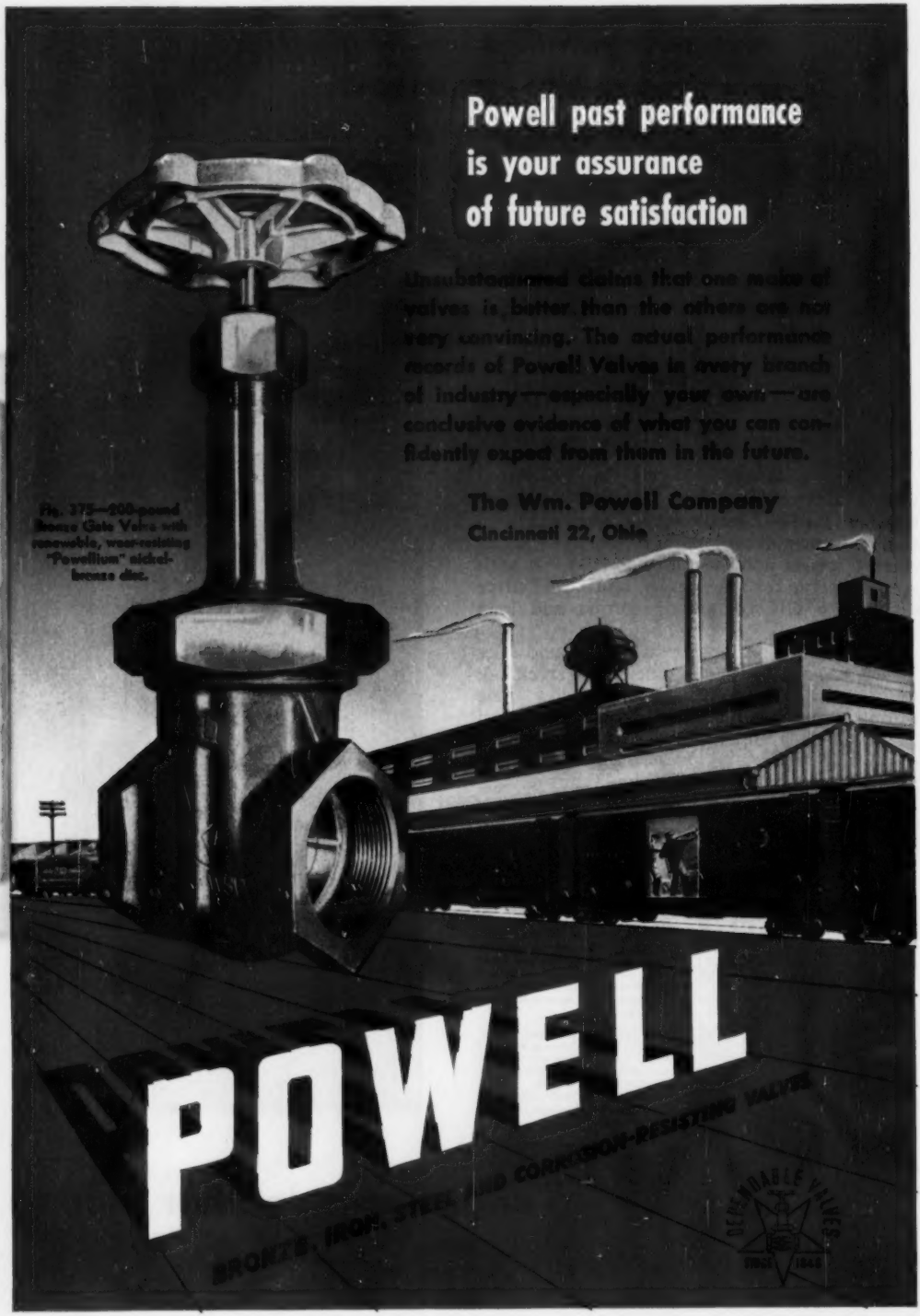
New Belting Catalog and Manual shows how to get more production-power with leather belting. Our representative will deliver your (free) copy upon request.
GRATON & KNIGHT COMPANY
Worcester 4, Massachusetts



Leather belt on cone drive in paper mill.

second century G and K **engineered leather belting**
for more production-power

GRATON AND KNIGHT Estab. 1851


Powell past performance
is your assurance
of future satisfaction
Unsubstantiated claims that one make of valves is better than the others are not very convincing. The actual performance records of Powell Valves in every branch of industry—especially your own—are conclusive evidence of what you can confidently expect from them in the future.
The Wm. Powell Company
Cincinnati 22, Ohio
Fig. 375—200-pound Bronze Gate Valve with renewable, wear-resisting "Powellium" nickel-bronze disc.
POWELL
BRONZE, IRON, STEEL AND CORROSION-RESISTING VALVES
DEPENDABLE VALVES
SINCE 1846

For more information, write direct or use Reader Service post card.

HUNTER *equipment safeguards quality*

at Juilliard

Leading designers always favor Juilliard fabrics because they have assurance that here, indeed, "fine fabrics are the foundation of fashion." Because Juilliard works unceasingly to safeguard its enviable reputation, it is only natural that they should use Hunter superior finishing and dyeing equipment. Mills everywhere prefer Hunter "plus production" equipment to finish a wide variety of *woolens, cottons, blends* and *synthetics.*

The versatile Model "D" Tenter Type Carbonizing Range permits complete drying and carbonizing in one machine without auxiliary equipment of any kind. In small plants it serves both purposes regularly and in larger installations it is an excellent emergency replacement for the regular 'sweat' dryer. Complete, detailed information in BULLETIN CC.

Juilliard and other leading mills use this Hunter Top Dyeing Machine to achieve top efficiency with considerable savings in water, dye stuffs, steam, labor and time. Simplified unloading and reloading reduces downtime between cycles to absolute minimum of less than 15 minutes. Complete details and specifications in BULLETIN TDK.

+us production

- efficient operation of modern equipment
- less down time of equipment
- quick, easy repair . . . rapid parts delivery

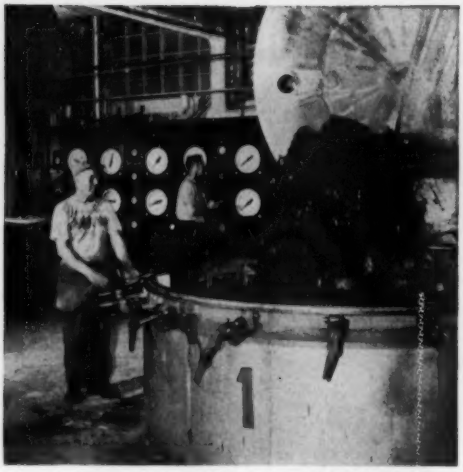
JAMES HUNTER

MACHINE COMPANY

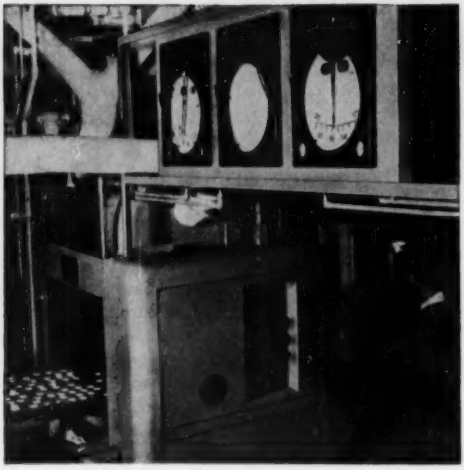
NORTH ADAMS, MASSACHUSETTS FOUNDED 1847

BUILT BY HUNTER . . . IT'S DEPENDABLE

JAMES HUNTER MACHINE CO. Hunter NORTH ADAMS, MASS.



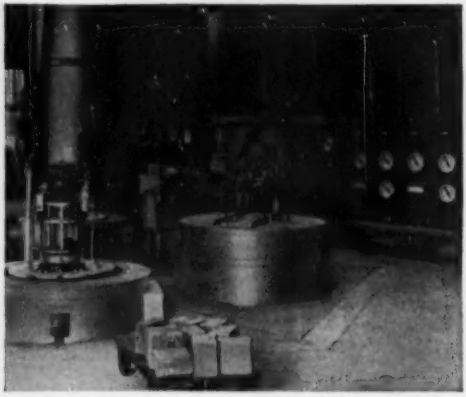
EXACT COLOR MATCHING *is important to quality carpet manufacturing . . . and depends, in part, upon the rigid maintenance of proper time and temperature schedules in the raw stock dye kettles. These ElectroniK controllers keep the schedules uniform and reproducible.*



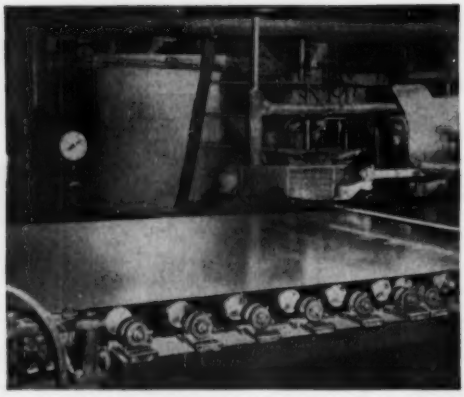
AUTOMATIC ENROBER CONTROL *system keeps the temperature of chocolate at precisely the proper point . . . for the mass production of quality candy. This same plant uses an automatic long cycle tempering to condition the chocolate before it enters the enrobers.*

For all of industry . . . *especially*

Instruments



HIGH QUALITY *heat treating is a must for the dies used in precision forging of jet-engine turbine blades. These ElectroniK instruments provide the sensitive, accurate control of treating temperatures necessary for the meeting of exacting specifications.*



HOLDING PRODUCT QUALITY *at a high level is one of the many important functions of Brown instruments. The pH controller shown with this Fourdrinier machine is part of a complete control system which helps insure continuous production of top quality sheet and board.*

SALABILITY OF FINISHED FABRIC *depends upon exact control in a variety of important process operations . . . like the control of critical temperatures in this heat-setting machine through which sheer woven nylon is passing.*

for the textile industry

increase quality

WHILE production at lower cost continues to be the outstanding requirement of the Textile Industry, it cannot be at the expense of quality...it must join hands with such desirable end results as more weavable warp, faster dyes and lighter weight fabrics.

Notable among the more important tools of quality processors are modern instruments which bring laboratory precision and accuracy to the control of critical production variables. Typical is the great progress made in the development of complete control systems for nylon heat setting machines . . . where exact temperatures mean correct finish, higher production and elimination of fabric damage.

The maintenance of quality processing standards is closely related to the all-important need for lowered costs and a favorable competitive position.

And Brown instruments, including the versatile *ElectroniK* potentiometer, are continuing to make timely contributions to increased quality throughout textile processing operations.

The complete line of Brown instruments and controls serves the machine operator with accuracy, speed and dependability in keeping with the standards of performance it has set for laboratory research, testing and analysis.

Our local engineering representative will welcome the opportunity to discuss all of your instrumentation requirements . . . and he is as near as your phone.

MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4509 Wayne Ave., Philadelphia 44, Pa. Service facilities available in more than 55 cities in the United States.

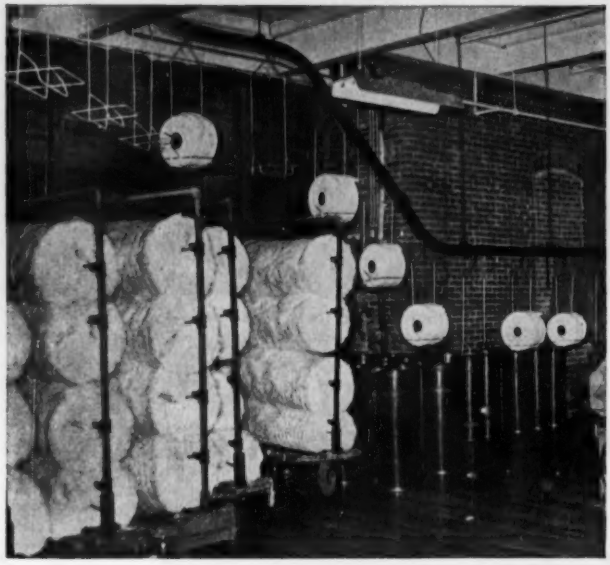
MINNEAPOLIS
Honeywell
BROWN INSTRUMENTS

First in Controls

● *Important Reference Data*

Write for copies of new brochures . . . "Tomorrow is Today" and "Fundamentals of Instrumentation for the Industries."

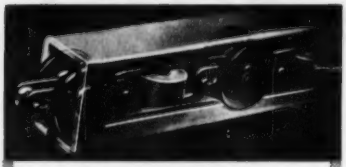
Get over the handling bottleneck



for lower costs... greater efficiency!

Handling bottlenecks in textile mills mean loss of time and money. But now there's a way to eliminate excess handling completely. The Richards-Wilcox Zig-Zag Continuous Power Conveyor releases valuable workers for other jobs, efficiently solves your handling problems. Zig-Zag utilizes every available inch of extra space. The system may be installed to move over or around existing machinery—there's no conflict with other vital jobs. A proper installation may even release extra space in crowded areas.

Find out how you can save on production costs and increase efficiency with an R-W Zig-Zag Continuous Power Conveyor in your plant. Write our nearest office for a consultation—there's no obligation on your part.



ENGINEERED FOR ECONOMY AND FLEXIBILITY

- Horizontal and vertical units alternate in a continuous chain traveling through special steel tubing.
- SAFE—all moving parts fully enclosed.
- Complete flexibility for installation in any plant. Easily installed, easily changed to conform to plant alterations.
- Low first costs. Low Power Factor.
- Standard horizontal or vertical curves—two-foot radius.

1880 RICHARDS WILCOX R-W AURORA Reg. U. S. Pat. Off. 1952

OVER 72 YEARS

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"

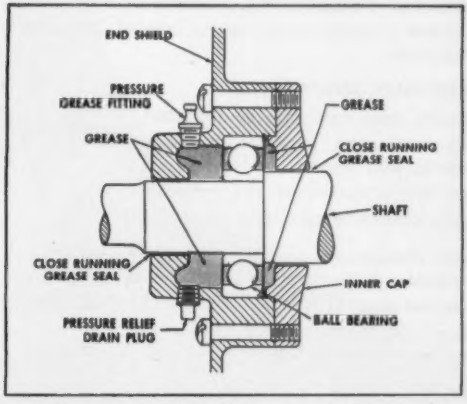
AURORA, ILLINOIS, U.S.A. *Branches in all principal cities*

SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT
INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS
ELEVATOR DOOR OPERATING EQUIPMENT

"Our G-E ball-bearing loom motors . . .

. . . sure are easy on maintenance men"

Says Guy H. Wallace, Master Mechanic at Monroe Mills, Monroe, Ga.



LARGE GREASE RESERVOIRS surround bearings with ample supply of grease to assure safer, more continuous operation under the tough, pulsating load imposed by the loom.

"We haven't had to grease our G-E Ball-Bearing Loom Motors since we put them in" says Guy H. Wallace, Master Mechanic at the Monroe Mill, Monroe, Ga. "But more important, when it becomes necessary, we'll be able to do it—easy—with a grease-gun—without tearing down the motors."

G-E Ball-Bearing Loom Motors stand up under the rigid speed and torque requirements of today's looms. Rugged cast-iron stator frames and end shields, and totally-enclosed stator construction simplify installation and upkeep. Careful electrical design adds extra life and reliability. For more information, contact your G-E Apparatus Sales Office or write for Bulletin GEA-5858. General Electric Company, Schenectady 5, N. Y.

654-25

Years of service—
then *easy* relubrication!

Bearing lubrication is no problem here. Grease reservoirs contain four times as much grease as in conventional sealed bearing construction. Bearing housing holds grease in constant contact with bearings. Eventually, perhaps after two years of service, lubrication will be necessary to lengthen bearing life. You do it with a grease gun—without removing the end shields!

GENERAL ELECTRIC

 For more information, write direct or use Reader Service post card.

when you specify light wall schedule 5 pipe

WHAT SCHEDULE 5 PIPE IS—
A light wall pipe, Carpenter Schedule 5 gives you more feet of pipe for every pound of scarce stainless steel. So you can quickly see how Schedule 5 reduces your cost per foot. Plus the fact that the larger I.D. means increased flow area.

HOW SCHEDULE 5 REDUCES COSTS
First saving is 40% to 50% on the cost of your pipe.

Since Schedule 5 is considerably lighter, this means quicker and easier installation.

And, because the increased capacity of Schedule 5 lets you use the next smaller pipe size, you can reduce substantially your costs of valves, fittings, etc.

FITTINGS ARE AVAILABLE
This pipe is easily adapted to use with existing lines of tubing or Schedule 40 and 10 pipe, using simple connectors. Fittings as well as stocks of Schedule 5 pipe are carried by conveniently located Carpenter distributors.

ADDITIONAL ADVANTAGES
Tubing sizes can now be replaced with light wall *pipe* . . . for ready hook-up with standard valves, pumps and other equipment which is normally manufactured in pipe sizes.

Data Sheets give you complete information about Carpenter Schedule 5 Stainless Pipe. Write for your personal copy. THE CARPENTER STEEL COMPANY, Alloy Tube Division, Union, N. J.
Export Dept.: The Carpenter Steel Co., Port Washington, N.Y. "CARSTEELCO"

Carpenter

THE U.S. NEEDS YOUR STEEL SCRAP NOW

STAINLESS TUBING & PIPE

Analysis · Tolerance · Finish

· guaranteed on every shipment

For more information, write direct or use Reader Service post card.

Color Sells Textiles

QUALITY KEEPS THEM SOLD

No matter what the type of textiles — cotton, worsted, or synthetics — woven, knitted or braided — COLOR attracts attention and sets the stage for a sale.

When you use Franklin Process Colored Yarns you not only promote initial sales, you also lay the groundwork for repeat business. Franklin Process Quality makes for lasting satisfaction. It is backed by more than 40 years of experience and the largest yarn dyeing organization in the world.

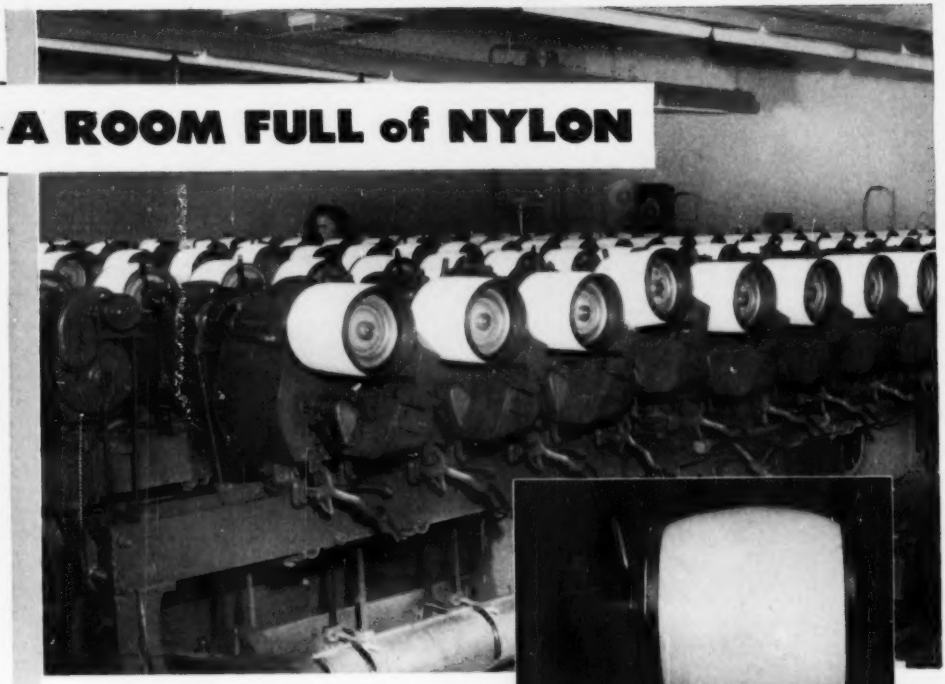
Franklin Process

LARGEST PACKAGE DYERS IN THE WORLD

Providence · Philadelphia
Greenville · Chattanooga

New York Representative
40 Worth Street

A ROOM FULL of NYLON



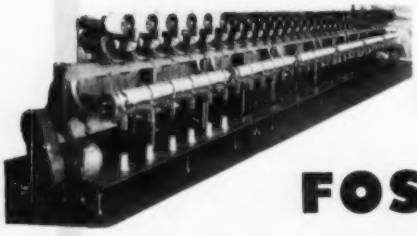
and Foster Model 76
Sizing Machines

Here's a successful installation of Foster Models 76 in the nylon sizing room of the Joy Silk Mills at Hartsville, S. C.

Featuring the exclusive Foster barrel wind package, the Model 76 is known for superior mechanical performance, marked operating economy and high speed winding. This is the original nylon sizer and it is widely accepted by producers and processors alike.

The lay of the yarn on this package (more open at center than ends) facilitates steaming and drying. The shape of the barrel wind package reduces tension to a minimum in the coning operation thus assuring better cones.

Many progressive mills, like the Joy Silk Mills, who handle nylon, are finding the Foster Model 76 *the* sizer for this yarn.



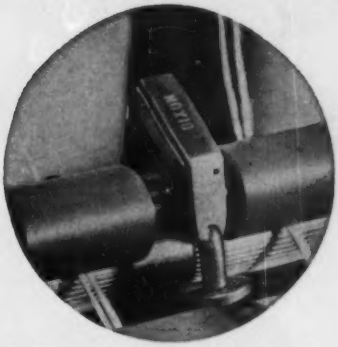
FOSTER MACHINE CO.
Westfield, Massachusetts

Southern Office: Johnston Building, Charlotte, N. C.; Canadian Representative: Ross, Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Canada; European Representative: Muschamp Taylor Ltd., Ashton-Under-Lyne, England.

FOSTER MODEL 76

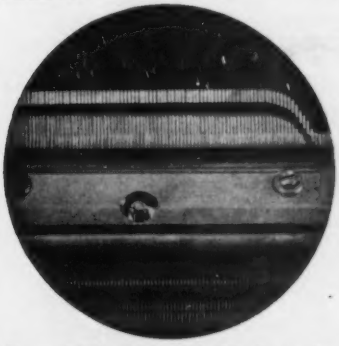
Nylon Sizing Machine

Textile machine parts of Du Pont nylon plastic



Drafting equipment parts molded of Du Pont nylon include saddle bearings on Saco-Lowell spinning frames. They need no lubrication... reduce cloth waste and maintenance costs. (Saddles made for Saco-Lowell by Dixon Lubricating Saddle Co.)

Thread guides such as this ring traveler need far less lubrication when molded of Du Pont nylon... provide more yardage on bobbins because of smoother operation...save production time... cut costs. (Traveler made by Clark Thread Co.)



Verge plate inserts molded of Du Pont nylon outlast those made of previous materials... provide a better cushion for sinker-backs... mean substantial savings in time and maintenance cost for hosiery manufacturers. (Used on Textile Machine Works' "Reading" full-fashioned knitting machine.)

need little or no lubrication... are light, tough, flexible... cut maintenance costs

A unique combination of superior performance and economy—that's the reason parts molded of Du Pont nylon are becoming standard equipment on more and more textile machines.

Nylon is tough, smooth, wear-resistant and unbreakable in normal usage. Because it is resilient, it absorbs shock loads and has low deformation under load. Nylon parts can be used continuously at temperatures up to 250°F. . . . are unharmed by oil or moisture. Used as a bearing material, nylon requires little or no lubrication . . . prevents costly damage to yarn and cloth. And its light weight (about ⅛ the weight of typical metals) and toughness in thin sections permit flexibility in design.

The examples illustrated here are just a few of the many nylon parts in use in the textile industry. Finger bearings, spindle bearings, condensers, and other machine parts molded of Du Pont nylon plastic have also proved superior in efficiency and economy.

Perhaps you can profit by using parts molded of Du Pont nylon. We'll gladly furnish the names of firms that supply mills with nylon parts . . . gladly assist you in developing new parts or improving present ones. For further information, write:

E. I. du Pont de Nemours & Co. (Inc.)
Polychemicals Department, District Offices:
350 Fifth Avenue, New York 1, New York
7 South Dearborn Street, Chicago 3, Illinois
845 East 60th Street, Los Angeles 1, California

DU PONT
REG. U.S. PAT. OFF.
150th Anniversary
Better Things for Better Living
... through Chemistry
Polychemicals
DEPARTMENT
PLASTICS • CHEMICALS

Century

TEXTILE MOTORS

In Action — You can see the lint moving through the ventilating passages

Century Textile motors give you continuous, satisfactory service because they shed dust, dirt and lint. Smooth, clean passages permit cooling air to enter the motor through the end brackets.

There's a steady blast of air that circulates near the bearings, around the windings and out through the large air passages in the frame.

Lint and dust pass through the motor readily. This results in clean surfaces which radiate the heat, and permits the motor to operate at normal temperature.

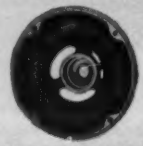
Century builds a complete line of electric motors from ⅛ to 400 horsepower in a wide range of types and kinds.

Specify Century for all your textile, or standard motor requirements.

Century Textile motors are rugedly built for long service life.

Strong, rigid cast iron frame, smooth contours permit free circulation of air.

Rotor assembly with ball bearings in place. Large fans assure adequate ventilation.



Rigid cast-iron end brackets help maintain alignment, help maintain smooth, quiet starting and running.

CENTURY ELECTRIC COMPANY
1806 Pine Street • St. Louis 3, Missouri
Offices and Stock Points in Principal Cities

Century Electric Company is celebrating its 50th year in the electrical industry 720

For more information, write direct or use Reader Service post card.

EX-CELL-O

... a great name in the
precision machine tool field!

Ex-Cell-O has been making precision parts to customers' specifications for close to 30 years. Today, these Ex-Cell-O products include parts for the textile industry . . . from spindles and various small parts to large assemblies. Ex-Cell-O has the facilities—machines, heat treat, assembly, and inspection—to produce your precision parts economically, in small or large volume, and in accordance with your delivery schedule. For a quotation, send a part blueprint to Ex-Cell-O Corporation in Detroit today.

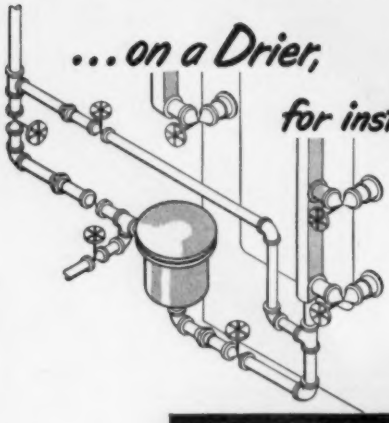
Bulletin No. 26181 describes Ex-Cell-O's textile products. Write now for your free copy.

EX-CELL-O CORPORATION DETROIT 32

XLO

Example of Steam Trap Durability

...on a Drier, for instance



THE INSTALLATION

On heavy-duty, steam-heated tumbler-type drier at American Linen Supply Company, Cincinnati.

THE HISTORY

A high discharge capacity trap was needed to operate this drier 16 hours daily under heavy loads, with 125 psi. steam. Specifications called for rapid, fully automatic condensate removal to insure fast warm-ups and a steady flow of hot, dry steam to the drier. Naturally, the lowest possible trap maintenance cost was also wanted.

The choice was a Crane 150-Pound Inverted Open Float Steam Trap, carefully selected for adequate drainage capacity, and above all, properly installed.

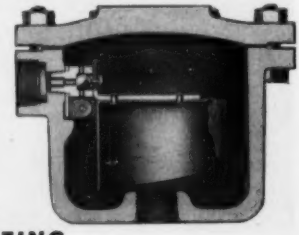
In service more than 8 years and never needing any repairs or new parts, the Crane trap has given complete satisfaction. Total maintenance expense: periodic routine inspection only.

TRAP SERVICE RATINGS

SERVICE LIFE:	More than 8 years - Heavy duty
SUITABILITY:	High discharge capacity
MAINTENANCE COST:	None - Routine inspection only
SPECIAL FEATURES:	Simple, dependable mechanism
OPERATING RESULTS:	Fast warm-ups - Steady, even heat
PRICE:	Good Buy
AVAILABILITY:	Stock item in Crane line

THE TRAP

Crane Iron Body Inverted Open Float Steam Trap, for 1 to 300 pounds saturated steam working pressures. Small and compact in all sizes, yet has high discharge capacity. Patented ball-type seating gives positive pressure seal. Simple operating mechanism with only one moving unit assures durable, trouble-free performance. See your Crane Catalog or your Crane Representative for complete data on these highly efficient traps.



The Complete Crane Line Meets All Valve Needs. That's Why,

More Crane Valves Are Used Than Any Other Make!

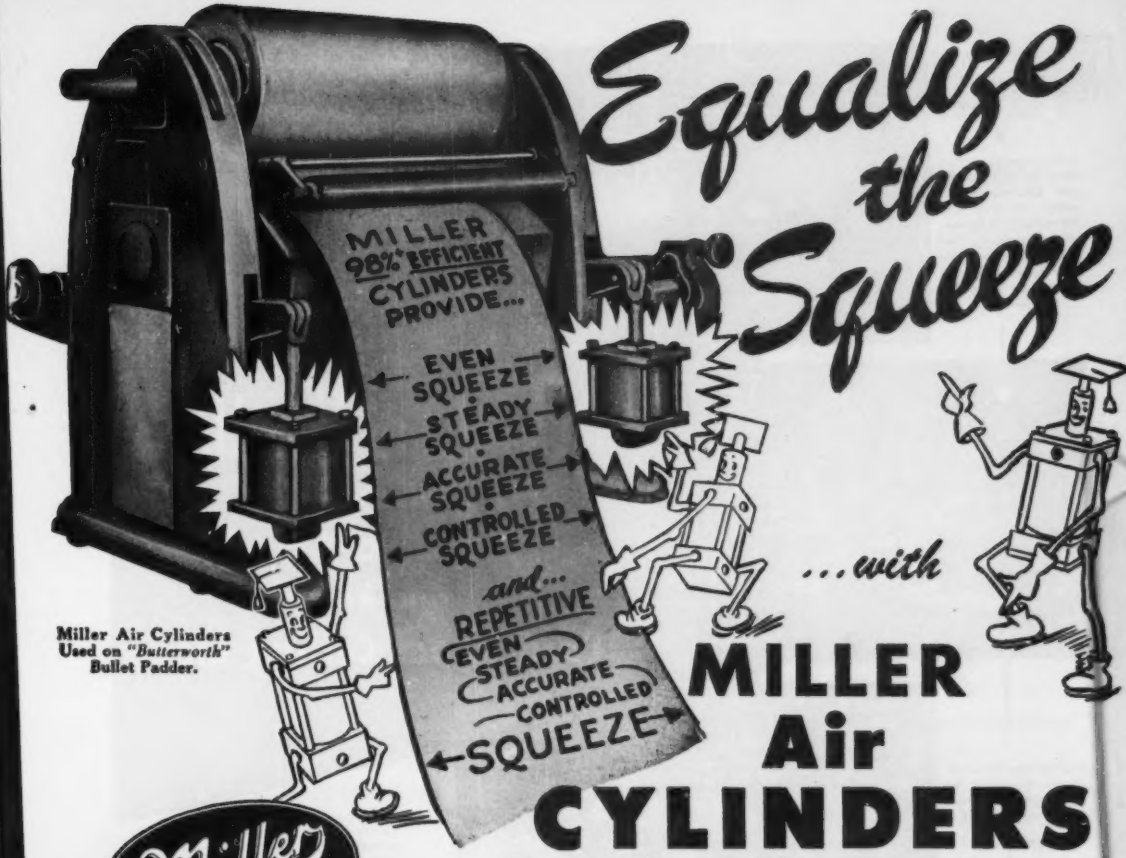
CRANE VALVES

CRANE CO., *General Offices:* 836 S. Michigan Ave., Chicago 5, Illinois

Branches and Wholesalers Serving All Industrial Areas

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

Equalize the Squeeze



Miller Air Cylinders Used on "*Butterworth*" Bullet Padder.

...with

MILLER Air CYLINDERS

Miller Air Cylinders economically provide the steady, even, repetitive "squeeze" so essential for the pressure rolls of textile machinery and equipment.

Precision-accurate adjustment and repetitive application of pressure to always the exact degree desired are assured by the high-efficiency, leakproof operation of these cylinders and the extremely low "break-away" pressures required to obtain smooth piston movement. Even when the operating plant air pressure is again applied after days of machine inactivity, piston movement is instantaneous—smooth- -chatter-free . . . because the Miller *self-regulating, wear-compensating* piston and rod seals *will not "freeze"* to prevent piston movement or to cause jumpy, jerky action. These seals never need adjustment, have no provision for adjustment, therefore *cannot be over-adjusted.* The Miller rod seal operates against the Miller scratch-resistant, rustproof hard chrome plated piston rod; the Miller piston seal operates against the precision-honed, highly polished finish of the Miller rustproof hard brass cylinder barrel. No wonder these seals still give leakproof, efficient service after millions of strokes. No wonder Miller Air Cylinders are completely free from the rust conditions common to ordinary cylinders.

In addition, *dirt wipers* at rod ends keep out all dirt and lint, and *solid steel* heads, caps, and mountings eliminate costly, dangerous breakage.

Write for illustrated cylinder bulletins A-105 and H-104

COMPLETE MILLER CYLINDER LINE INCLUDES: AIR CYLINDERS, 1½" to 20" BORES, 200 PSI OPERATION; LOW PRESSURE HYDRAULIC CYLINDERS, 1½" TO 6" BORES FOR 500 PSI OPERATION, 8" TO 14" BORES FOR 250 PSI; HIGH PRESSURE HYDRAULIC CYLINDERS, 1½" TO 12" BORES, 2000-3000 PSI OPERATION. ALL MOUNTING STYLES AVAILABLE.

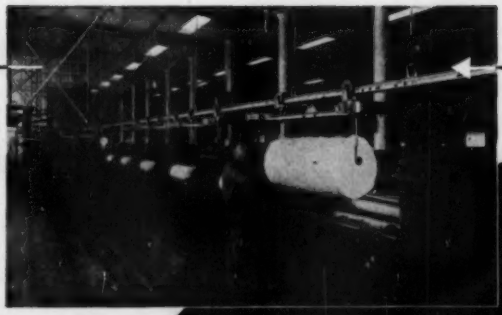
MILLER MOTOR COMPANY

2002-06 N. Hawthorne — Melrose Park, Ill.

AIR AND HYDRAULIC CYLINDERS · ACCUMULATORS · COUNTERBALANCE CYLINDERS · BOOSTERS · BIG HEADS

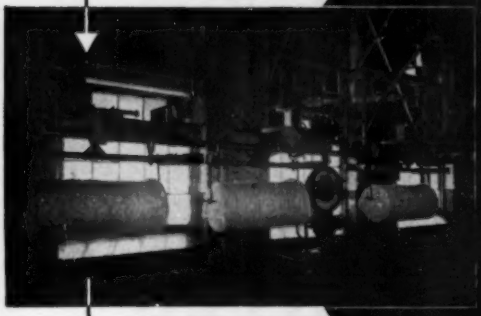
CLEVELAND—PITTSBURGH—PHILADELPHIA—DETROIT—YOUNGSTOWN—BOSTON—HARTFORD—NEW YORK CITY—DAYTON—ST. PAUL—FORT WAYNE—INDIANAPOLIS—MILWAUKEE—NASHVILLE—SEATTLE—LOS ANGELES—SAN FRANCISCO—BALTIMORE—ST. LOUIS and OTHER AREAS.

Sales and Service from coast to coast



At the scale lap carriers move across scale section when weight is within tolerance and roll to the card room—all automatically. Signal sounds when weight is off tolerance requiring release by picker tender.

Lap Carriers roll by gravity from pickers to scale.



Overhead Handling

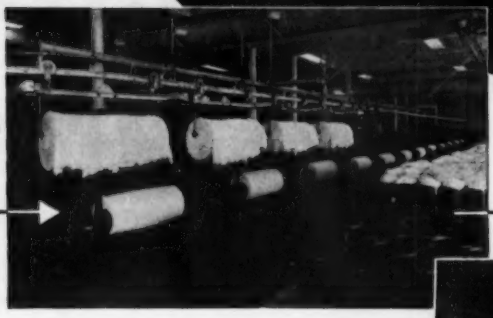
delivers

Laps to Cards

and keeps

Card Room Ceiling Clean

Train of laps move constantly throughout the card room for manual creeling of cards.



Empty carriers return to pickers. Note the high-velocity fan which sends blast of air to ceiling preventing lint accumulation.

Let your American MonoRail engineer tell you about the time and money-saving advantages of American Mono-Rail Overhead Handling equipment and cleaning. Just drop us a line.

THE AMERICAN MONORAIL COMPANY

13108 ATHENS AVENUE **CLEVELAND 7, OHIO**

Production per operator hour up 5 to 1 WITH WARNER & SWASEY PIN DRAFTERS!

4½ OPERATORS

ONE OPERATOR

PREVIOUS SYSTEM

6 sets of drawing

Can Gill 2 Spindle Gill 4 Spindle Draw Box 6 Spindle Weight Box 8 Spindle Draw Box 12 Spindle Finisher 32 Spindle Reducer	37 girls	
48 Spindle Roving		4 girls
TOTAL		41 girls

PIN DRAFTER SYSTEM

Combing: 6 machines	2 girls
Drawing: 16 machines	4 girls
Roving	2 girls
TOTAL	8 girls

BRANCH OFFICES

61 Rivulet St., North Uxbridge, Mass.
6910 Market Street, Philadelphia, Pa.
Candler Building, Atlanta, Ga.

The above diagrams show actual production results after a prominent worsted mill modernized with Warner & Swasey Pin Drafters. Compare these figures with your mill's operations. Then, for more complete information, call in our Field Engineer nearest you.

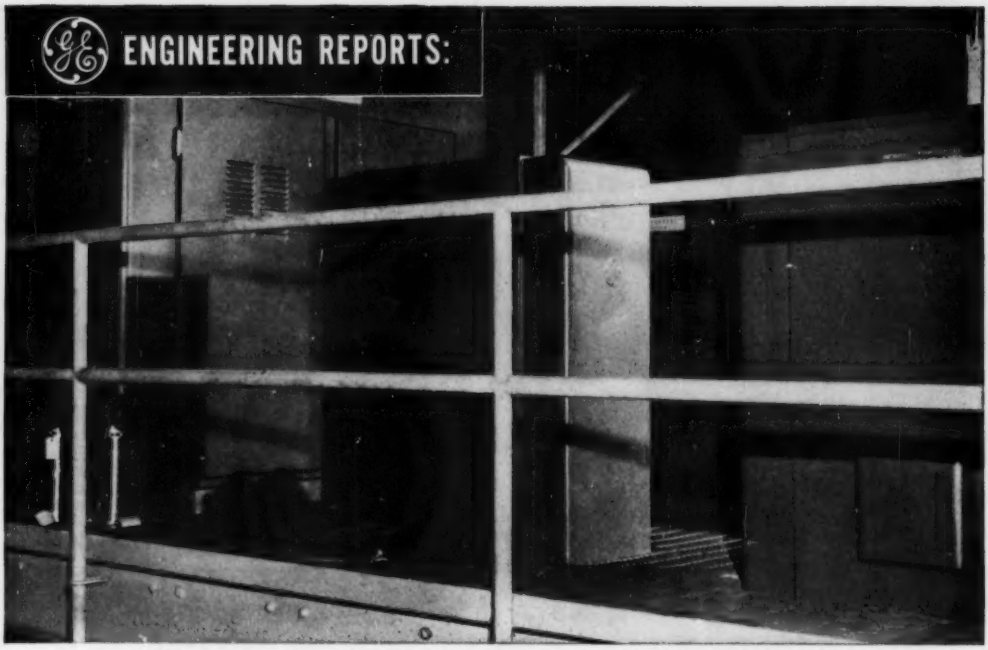
WARNER & SWASEY PIN DRAFTER

- Eliminates costly steps in preparation of sliver for roving
- Produces better, more evenly blended sliver in greater volume
- Reduces waste
- Uses either combed sliver or ball top
- Applicable to French, Bradford, or American systems

TEXTILE MACHINERY DIVISION

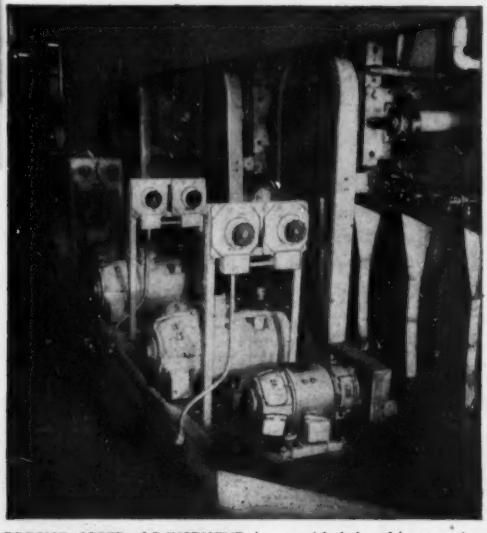
YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY

ENGINEERING REPORTS:

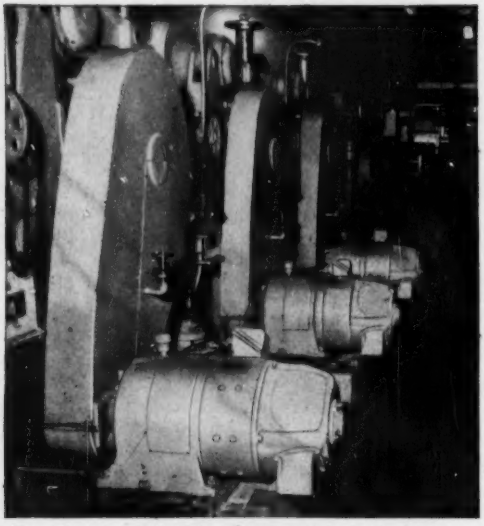


EASY-TO-INSTALL G-E Speed Variator power package can be located practically anywhere. At Delta Finishing Co., some are placed on a grid-floored balcony. Costly interwiring was eliminated—running in conduits was all that was needed.

New G-E packaged range drives



PRECISE SPEED ADJUSTMENT is provided in this scouring washer by individual G-E motor field rheostats.



CAREFUL CO-ORDINATION of four 10-hp G-E splashproof gear-motors keeps four-compartment washer in step.

COMPACT G-E Speed Variator power "packages" save floor space. The four units shown here contain all equipment necessary for powering several ranges at Delta Finishing. Note how compact design of units allows grouping in limited area.

make plant layout more flexible

P.S. FOR MANAGEMENT: G.E.'s new "Progressive Mechanization" Program can help you develop and execute planned mechanization. For free manual GEA-5789, or showing of color film, contact your nearest G-E Apparatus Sales Representative.

Compact Packaged Power units at Delta Finishing Co. save space, cut installation costs

At the Delta Finishing Co. plant in Wallace, S. C. (division of J. P. Stevens & Co., Inc.) the wide variety of range layouts needed makes General Electric packaged drives especially valuable.

A de-sizer, a ten-beam boil-off, a scouring washer, a loop dryer, and a mercerizer washer, among others, are accurately co-ordinated by these adaptable multi-motor systems. Each drive frees important floor space—power units combine motor-generator set, exciter and control panel in single, compact "packages." No special foundation is needed. Units can be located anywhere.

Costs are lowered, too. Power units are mass-produced from standardized parts. Installation or relocation is simple—just set up the power "package," run in the conduit. Range layouts can be changed easily and quickly.

To learn more about range drives that give all the advantages of d-c speed control, *plus* the advantages of drive "packaging," call in your G-E textile-mill representative. General Electric Co., Schenectady, N.Y. 65-124

Engineered Electrical Systems for Textile Mills

GENERAL ELECTRIC

NEW Spinning Frame Drive

CUTS DOWN-TIME ON SPEED CHANGES!

INCREASES PRODUCTION!

The variable sheave in this new drive locks as a unit when tightened on the shaft. It locks and unlocks easily, quickly, with the turn of a screw.

One-point adjustment establishes accurate pitch diameter; cylinder speeds are held within extremely close limits. Changes are made quickly, production is kept at maximum. In rare cases where a change in the companion sheave is required, the famous Dodge Taper-Lock principle makes the change quick and easy.

The slide motor base permits quick changes in center distances to preserve proper belt tension as the variable sheave is adjusted for changes in speed.

Latest design Sealed-Life Belts have deep sidewalls and lateral rigidity for efficient operation.

All components in this new Dodge Spinning Frame Drive are engineered to operate in perfect harmony, assuring a long life of dependable, trouble-free service. Write now for Bulletin A-618 with complete information.

DODGE MANUFACTURING CORPORATION
1400 UNION STREET, MISHAWAKA, INDIANA

DODGE
of Mishawaka, Ind.

Call the Transmissioneer, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new cost-saving methods. Look for his name under "Power Transmission Equipment" in your classified phone book.

NEVER BEFORE

THE NEW U S CROSS-LAMINATED

WARPER BEAM HEADS ARE . . .

- fabricated from carefully selected Northern Adirondack Rock Maple from our own forests. Rock Maple offers
  - greater stiffness,
  - greater hardness,
  - better shock resistance;
- seasoned to proper moisture content in our modern dry kilns;
- 4-ply (equal thickness) construction for high-tenacity rayon, cross-laminated at 90° angle, scientifically glued with the finest waterproof adhesive and bonded under heavy pressure. Stresses and strains in wood equalized, to reduce any tendency toward warping;
- Rim-protected by a tough, tight-fitting steel tire.

RESULT: The lightest, strongest, most durable WARPER BEAM HEADS *ever made.*

U S makes Warper Beams and Warper Beam Heads for Cotton, Nylon, Rayon.

FOR DETAILED INFORMATION SEND FOR BULLETIN WBH-2

THE SEAL OF QUALITY AND SERVICE

US

SINCE 1857

U S BOBBIN & SHUTTLE CO.

LAWRENCE, MASS. • GREENVILLE, S. C. • PHILADELPHIA, PA. • PROVIDENCE, R. I. • CHARLOTTE, N. C. • MINNEAPOLIS, MINN.
LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave. DALLAS: O. T. Daniel, Textile Supply Co. CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

U S owned timber properties permit complete control of wood stock selection and every step in processing, from forest to finished products. Five manufacturing plants, North and South, provide ample facilities to produce and deliver promptly the cost-saving yarn carriers you need, in any quantity.

What do you do when your v-belts get loose or break?

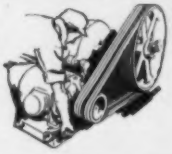
1 **Leave the drive alone**

You get more slippage
...wasted power
...excessive belt wear
...uneven sheave wear
...less production

2 **Slide the motor back**

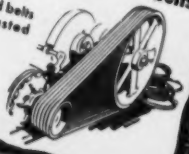
Tight belts get too tight

Life of belts and bearings is reduced



3 **Install a new set of belts**

Discarded belts mean wasted money



4 **Use VEELOS...**

Only with VEELOS...

the adjustable v-belt—can you get *all* these operating advantages. And *only* with Veelos can you eliminate costly v-belt inventory because just four reels of Veelos in the O, A, B and C widths can replace up to 316 different sizes of endless v-belts.

VEELOS DATA BOOK...

The plain facts on construction, installation and use of Veelos are included in this illustrated Data Book—write for your copy.

MANHEIM MANUFACTURING & BELTING COMPANY
611 Manbel St., Manheim, Pa.

Link construction permits quick installation
Easy adjustability
...provides controlled tension on each belt
...eliminates loafers
Keeps your machines running for *profitable* production

VEELOS
THE LINK
V-BELT

ADJUSTABLE TO ANY LENGTH • ADAPTABLE TO ANY DRIVE

Made in all widths in three types: regular, oil-proof, static conducting. Also double V in O, A and B. Packaged on reels in 100-foot lengths. Sales engineers in principal cities; over 350 distributors throughout the country. VEELOS is known as VEELINK outside the United States.

Royal blue shades

on nylon or wool

Du Pont Anthraquinone
Milling Blue BL

The royal blue shades come from a bright acid blue dye that possesses outstanding fastness properties. On nylon, it exhibits a high degree of light fastness and wet fastness, particularly in pastel and medium shades. On wool, it gives fastness results comparable to nylon in most cases. This dye is valuable for union dyeing and as a wool shading element.

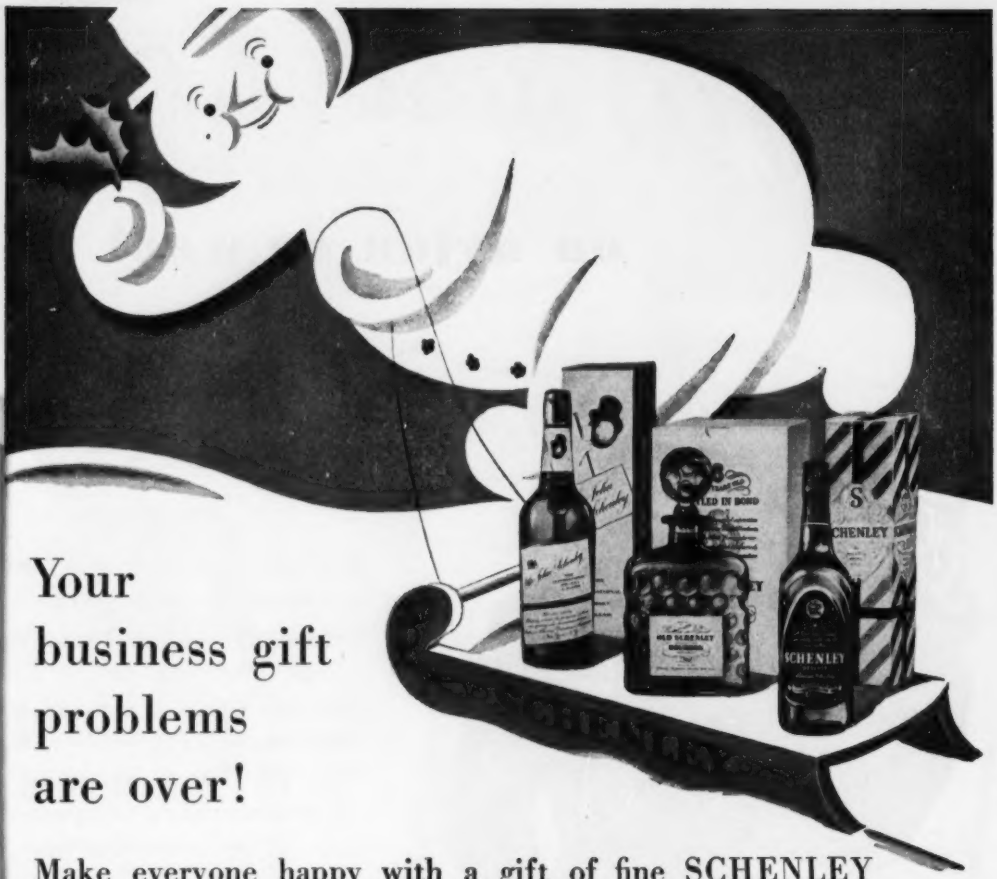
Du Pont Anthraquinone Milling Blue BL is especially recommended for rawstock, top and yarn dyeing. For information on it—or for help on any coloring problem—consult our technical staff. E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

Du Pont Dyes

DU PONT
REG. U. S. PAT. OFF.

150th Anniversary

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



Your business gift problems are over!

Make everyone happy with a gift of fine SCHENLEY whiskies. They're convenient to buy, economical to give and, above all, the gifts that no man ever exchanges.

SIR JOHN SCHENLEY *The International Whisky—World's Choicest Blend.* Luxury bottle, luxury carton, luxury whisky . . . every drop of its whisky is 8 years old or older!

BLENDED WHISKY, 86.8 PROOF. 35% STRAIGHT WHISKY. 65% GRAIN NEUTRAL SPIRITS.

OLD SCHENLEY *The gift whiskey you'd much rather keep than give away!* An impressive gift: the greatest of all bourbons . . . in a beautiful decanter. 8 YEARS OLD. Twice as old as most bottled-in-bonds.

STRAIGHT BOURBON WHISKEY, 100 PROOF. BOTTLED IN BOND.

SCHENLEY RESERVE *The best-tasting whiskey in ages!* When you give today's Schenley, you *know* you're giving the best whiskey there is! Handsome gift carton is new! Needs no wrapping.

BLENDED WHISKEY, 86 PROOF. 65% GRAIN NEUTRAL SPIRITS.

Nature's unhurried goodness

+

Schenley's unmatched skill

=

The best-tasting whiskies in ages!

FOR:

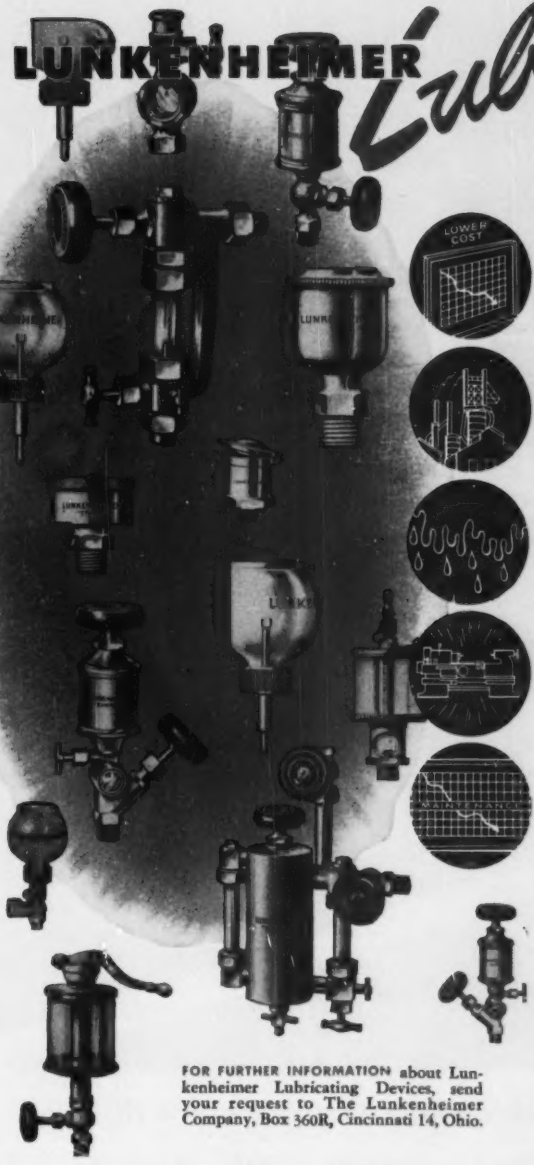
- CUSTOMERS
- EMPLOYEES
- SALESMEN
- PROSPECTS
- DEALERS
- SERVICE AGENTS
- SUPPLIERS
- PUBLIC RELATIONS
- PURCHASING AGENTS

(P. S. HOLIDAY PARTIES)

Decanter and gift cartons above at no extra cost.

SCHENLEY DISTRIBUTORS, INC., NEW YORK, N. Y.

LUNKENHEIMER *Lubricating Devices*



LOWER **Machinery Repair Cost**

REDUCE **Power Consumption**

ELIMINATE **Waste of Lubricants**

CUT **Fire and Accident Hazards**

SAVE **Man-Hours of Maintenance**

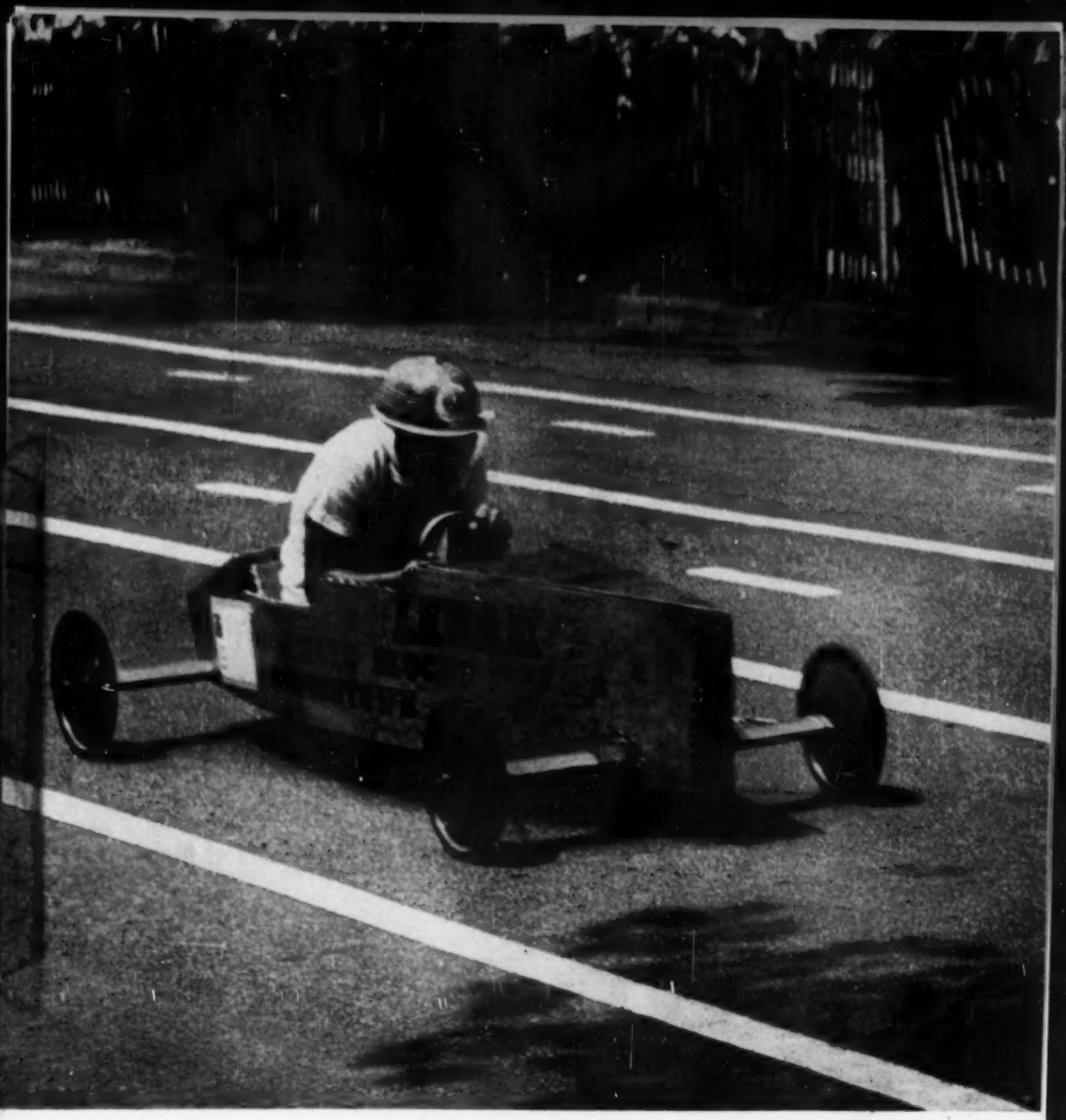
FOR FURTHER INFORMATION about Lunkenheimer Lubricating Devices, send your request to The Lunkenheimer Company, Box 360R, Cincinnati 14, Ohio.

And they're built to the same high standards of craftsmanship and quality that you've always associated with Lunkenheimer Valves. Use them to lubricate bearings which are hard to reach and often neglected. Call your local Lunkenheimer distributor for recommendations and literature.

BRONZE • IRON • STEEL

LUNKENHEIMER

THE ONE *Great* NAME IN VALVES



He's a great Soap Box racer—BUT

How does he compare with Joe Lunn?

Joe Lunn, 11, of Thomasville, Georgia, won the National Championship of the 15th Annual Soap Box Derby in Akron, Ohio, on August 10, 1952. His time for the 975 ft. course was 27.77 seconds.

In everything we do, we make comparisons . . . In Full-Fashioned Knitting, the one standard for comparison is the 30-section "Reading" Machine with a production of 14 to 16 dozen pairs of superior quality stockings in 8 hours. Simple and flexible in operation. 51-gauge, 60-gauge.

TEXTILE MACHINE WORKS • READING, PENNA.

How PROSPEROUS Is The USA?

Just how prosperous *are* the people of the United States?

The sole purpose of this message is to help clear up the confusion and controversy that surrounds this important question.

To find out how much prosperity, or material well-being, the people of the United States now enjoy, it is necessary to get answers to these questions:

1. As compared with other times, what is the total amount of goods and services that we have available for our enjoyment?

2. How great, on the average, is the share of each American in this prosperity?

3. How does our prosperity compare with that of other nations?

National Product at Peak

The government statisticians who do the bookkeeping for the nation produce a figure called the Gross National Product. It is supposed to be the total obtained when you multiply the amounts of everything we produce by the prices of everything produced. This year the GNP, as it is commonly tagged, will add up to something like $345 billion.

Since this will be the highest total that GNP has ever attained, some people will acclaim it as evidence that we now are enjoying the greatest prosperity on record.

The GNP, however, is not an accurate yardstick of prosperity. It may go up because of price inflation alone without any increase at all in the output of goods and services. Also the GNP includes very large amounts of goods and services, such as those for the military, which are in fact a result of misfortune rather than of a condition that might properly be called prosperity. Moreover, there is no deduction from the GNP to make allowance for the equipment that is worn out in producing it.

Little Recent Progress

When we make adjustments such as these — to find out how much of our production really is available for the use and enjoyment of the civilian population — the *adjusted* national product since the beginning of World War II comes out about as follows. The effects of price inflation have been removed from these figures.

YEAR	ADJUSTED NATIONAL PRODUCT	
	Billions 1951 Dollars	Index (1946 = 100)
1940	$176.2	76
1946	232.5	100
1947	240.7	104
1948	244.3	105
1949	239.7	103
1950	260.9	112
1951	267.9	115
1952	264.3	114

From this table the fact stands out that progress in raising our level of prosperity has been halting. What progress we have made came in a few dramatic increases before or after a military build-up. Aside from those, the progress has been fairly slow. This year, 1952, it has been particularly discouraging.

Again, when account is taken of the number of people who must share in the goods and services that are available, our progress is even less marked. This is shown by the following table which gives the share of the average American in the national product. This, as the table indicates, is arrived at simply by dividing the total of available goods and services by the population on hand to share in them.

YEAR	POPULATION Millions	ADJUSTED NATIONAL PRODUCT Billions 1951 Dollars	ADJUSTED NATIONAL PRODUCT Per Person
1940	132.0	$176.2	$1,335
1946	141.3	232.5	1,645
1947	144.0	240.7	1,672
1948	146.6	244.3	1,666
1949	149.2	239.7	1,607
1950	150.6	260.9	1,732
1951	154.4	267.9	1,735
1952	156.9	264.3	1,685

Here it is clear that we have made little or no headway since the end of World War II.

U.S. Compared to Other Nations

Although we are making slow progress in increasing our prosperity, as measured during recent years by the amount of goods per person, we still are by long odds the most prosperous people on earth. This can be seen from the following table. It offers a rough measure of how the adjusted output of goods and services per person in the United States compared in 1951 with that in a number of other countries:

COUNTRY	PER PERSON
United States	$1,735
Canada	1,231
United Kingdom	614
France	510

To figure more closely "How Prosperous is the U.S.A.?" we must answer a number of other questions. One of the most important will be the subject of a later editorial in this series. It is "Who Gets What?" How have various income classes and occupational groups shared the total available goods?

Another question that has a basic bearing on the quality and durability of our prosperity is "How fast are we using up irreplaceable natural resources, such as oil, iron ore, and copper, to sustain it?" Any attempt to deal with this very complicated question must also be deferred.

A Problem for the Future

In the meantime, however, key facts about our prosperity are that:

1. Most of the increase in the nation's total production in recent years has been to meet military requirements rather than to improve the American standard of living.

2. The increase in the supply of goods and services actually available for the average American has been slow and halting.

3. We Americans are still extremely well provided with the good material things of life, as compared with peoples in other lands.

These three facts bring to mind a whole series of policy questions. What can be done to speed up progress in improving our prosperity? What—to repeat the question discussed in the previous editorial in this series—can be done to make our prosperity less precarious?

Here, however, the purpose is not to prescribe. It is simply to indicate as accurately as it can be done in a brief article the actual state of the nation's prosperity.

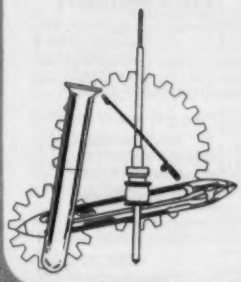
In doing this much, it can properly be remarked that the record presents to the American economy both a problem and an opportunity of surpassing importance. It is that of building a prosperity that will be both more progressive and more secure than any we have known in recent years. In the light of what clearly remains to be done, we shall make a grave mistake if we use up any of our energy in congratulating ourselves on the relatively meager progress here recorded.

McGraw-Hill Publishing Company, Inc.

TEXTILE WORLD *presents—*

Annual

Mill Check-Up *Section*



The Year 1952 Sees

1 Textile-Mill Expenditures and Commitments Stay High

Pages 108 and 109 of this issue of TEXTILE WORLD are devoted to the regular annual November analysis of textile-mill equipment purchases and commitments to buy that were made during the year.

2 Improved Equipment and Supplies Continue To Hit the Market

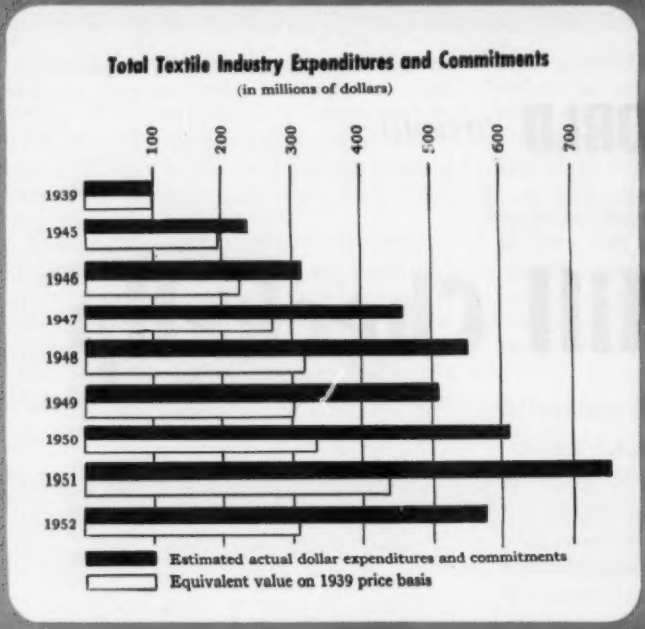
Pages 110 to 135 of this issue are given over to a consolidated highlighting of most of the improved textile machinery, equipment, and supplies that were made available to American mills this year.

Textile operations in recent years have become more efficient operations—productionwise per machine, per dollar investment, and per employee. The mills that are getting the good solid business of today are those mills with the lowest machine and wage costs per unit produced.

For example, in 1946 there were 23,787,000 cotton-type spindles and over 3,500,000 woolen- and worsted-type spindles in place in the U. S. In 1951 American mills had available only 23,150,000 cotton-type and about 3,000,000 woolen- and worsted-type spindles. Yet our fiber consumption in 1946 and again in 1951 was approximately the same—just under 5,000,000,000 lb.

Figures for looms in place for the years 1946 and 1951 show similar increases in use and production efficiency. Part of the increase in end product results in part, of course, from a more general use of multiple shifts through all manufacturing processes. But a large part of the increase also stems directly from the faster rate of production per hour that is possible with all types of brand-new equipment.

The facts are clear enough to speak for themselves. All textile production men know them. For specific ways in which mills have been able in 1952 to increase their efficiency in all operations, see the brief new-equipment descriptions that make up the greater part of this issue of TEXTILE WORLD.



Index Numbers on Textile Machinery and Industrial Building Costs
(1926 = 100)

Textile Machinery

1939	83.7
1945	101.8
1946	122.1
1947	146.6
1948	157.4
1949	159.0
1950	170.5
1951	189.0
1952	194.0

Mill Buildings

1939	99
1945	133
1946	155
1947	182
1948	199
1949	196
1950	214
1951	229
1952	232

(Compiled by Marshall & Stevens, Chicago, Ill.)

1 Simplified Processing Sparks MODERNIZATION As Mill Commitments Again Top $500,000,000

- Annual TW survey shows that by the end of 1952 American mills will have spent or committed—
  - . . . $200,172,000 on cotton-system mill improvements
  - . . . $197,964,000 on synthetic-fiber-processing mill improvements
  - . . . $ 80,082,000 on woolen and worsted mill improvements
  - . . . $ 59,856,000 on knitting mill improvements
  - . . . $ 37,875,000 on dyeing and finishing plants

  for a total of $575,949,000—the third highest year ever.
- Advantage is taken of the present easy-money policy of the Federal government for current defense expenditure. Rapid-amortization tax-write-off formulas aid mills and primary producers of synthetic fibers to prepare for expanded demand in the years to come.
- Business slump of first half of the year seemingly did not affect long-term modernization plans of mills that know the value of spending money in order to make money.

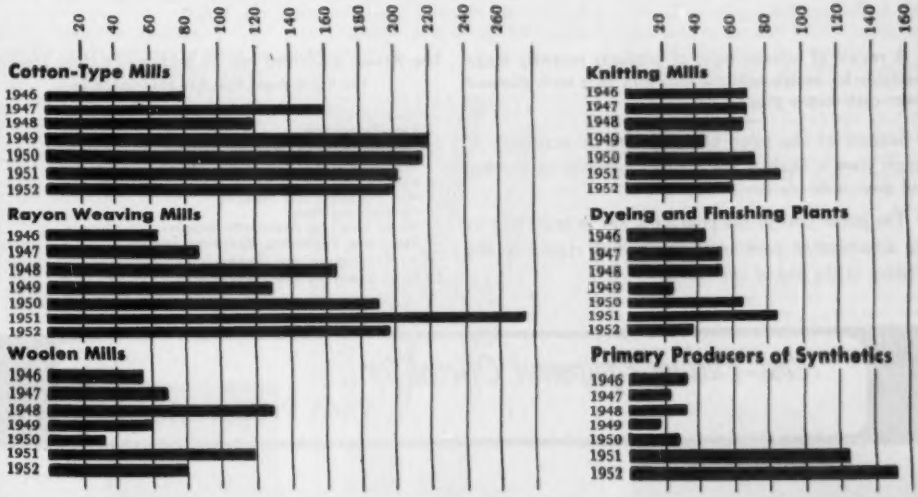
By RICHARD C. SCOTT, New York Editor, TEXTILE WORLD

FOR THE FIFTH CALENDAR YEAR in a row, U. S. textile mills have spent or committed more than half a billion dollars for new plant and equipment of the heavier type—this year to the tune of approximately $576,000,000. Almost 70% of the funds spent have been put into cotton and synthetic-fiber-processing mills.

Woolen and worsted mills were reported in many cases working with newer types of equipment—such as the Pacific converter, improved pin drafting machines, wider cards, etc.—without publicizing their efforts too much. There are, for example, now said to be over 100 Pacific converters in various mills in the United States and other countries. Similar quantities of other new machines are in use. The short-cut method of processing should bear special watching in the future by alert mills running wool and wool-and-synthetic blends.

Distribution, by Type of Mill, of Improvement Expenditures and Commitments Made Since End of World War II

(in millions of dollars)



Assessing the Facts

The figures given in the accompanying graphs were worked out through a standard survey procedure that TEXTILE WORLD has carried out each year at this time for quite a few years.

The procedure consists of analysis of all the "News About Mills" items that have appeared in the magazine since the previous January and an estimate of the total figure for the balance of the year from these first-, second-, and third-quarter figures. Allowances are made for duplication of reporting from the field and for multipurpose commitments that are obtained from the news releases of some organizations.

Another important point to keep in mind while looking over the charts is that prices of textile-mill machinery and equipment, like everything else, have been going up as the value of the U. S. dollar has gone down. So for a truer comparative evaluation of each year's purchases and commitments, going on back to 1939, the reader should note the white horizontal bars in the graph entitled "Total Textile-Industry Expenditures and Commitments."

(*Continued on page 216*)

Outstanding Mill Examples of Recent Modernization Programs

Dan River Mills	. . . $6,500,000 committed during 1952
Woodside Mills	. . . $13,000,000 on five plants, committed previously
Erwin Mills	. . . $2,650,000 committed during 1952
Alexander Smith, Inc.	. . . $1,553,000 for Greenville, Miss., plant
American Woolen Co.	. . . $175,000 for Tifton, Ga., plant
Collins & Aikman Corp.	. . . $400,000 for worsted-goods finishing
Princeton Worsted Mills	. . . $1,100,000 for Kingstree, S. C., plant
Textron Southern	. . . $1,500,000 for expansion at Belton, S. C.
Goodyear Tire & Rubber	. . . $10,000,000 for expansion at Gadsden, Ala.
Reeves Bros.	. . . $215,000 for modernization at Woodruff, S. C.
P. H. Hanes Knitting Co.	. . . $500,000 for plant at Sparta, N. C.
Barber Hosiery Mills	. . . $75,000 for addition at Mt. Airy, N. C.
Hoover Hosiery Co.	. . . $500,000 for modernization at Concord, N. C.
Julius Kayser & Co.	. . . $1,000,000 for new finishing plant
Central Yarn & Dyeing Co.	. . . $250,000 for package-dyeing facilities
Naumkeag Steam Cotton Co.	. . . $2,300,000 for Whitney, S. C., finishing facilities

Securities and Exchange Commission Comes Up with a $491,000,000 Figure

According to figures compiled by the Securities and Exchange Commission for the U. S. Dept. of Commerce, recently released, the nation's textile industry will have spent nearly one half a billion dollars in plant expansion before the first of the year. The specific figure given was $491,000,000.

This figure compares favorably with the $576,000,000 figure for 1952 arrived at by TEXTILE WORLD.

2 COST-CUTTING EQUIPMENT
Offered During the Past Year

● A review of various types of products recently made available for textile-mill use indicates that mills demand lower-cost textile processing.

● Success of the piece of equipment or accessory or supply item is likely if the product improves on another and gives a day-to-day saving.

● The initial cost of the product is not so important as the amortization position of the mill in regard to the product at the end of two years.

This Review Is Divided Into 10 Sections To Help You Find the Equipment You Are Interested in—

		Page
1	Yarn Preparation	110
2	Twisting, Winding, Warping, Slashing	113
3	Weaving	117
4	Knitting	119
5	Wet Processing and Finishing	121
6	Materials Handling	126
7	Waste Handling, Accessories, Supplies	127
8	Regulating, Controlling, Measuring, Testing	129
9	Air Conditioning and Heating	134
10	Power Generation and Transmission	135

Cost-Cutting Equipment Offered for... Yarn Preparation

▶ Two outstanding new-machinery developments were described at feature-article length by TW editors during the past year. New equipment so described was considered worthy of special treatment by us and special consideration by our readers. They were:

SG-1 Spinning Frame (Seco-Lowell Shops)
April, '52, p. 120

Pneumastop (Pneumafil Corp.)
Sept., '52, p. 106

•

Fancy Cover and Side Pieces Improve Woolen Card

The Uxbridge-type fancy cover and exhaust and filling-in side pieces, both for woolen cards, are now available from Whitin Machine Works, Whitinsville, Mass.

The fancy cover and exhaust permits salvaging stock thrown off by the fancy roll and reduces the amount of lint deposited on the card and elsewhere in the card room. The sheet-metal cover fits snugly over the fancy-roll area so that there are no disturbing drafts. The cover can be tipped away from the roll for grinding. The cover design permits a gauge to be inserted for making settings. Waste removed can be returned to bins, to an automatic feeder, or to feed chutes.

•

Variation in Card Roving Reduced by Compensator

The "Bigelow Card Compensator," a device recently patented by Bigelow-Sanford Carpet Co., Inc., 140 Madison Ave., New York, N. Y., controls and improves the uniformity of roving on woolen cards using any type of broad-band feed, the company says. The compensator is being manufactured commercially by Davis & Furber Machine Co., North Andover, Mass., and Whitin Machine Works, Whitinsville, Mass.

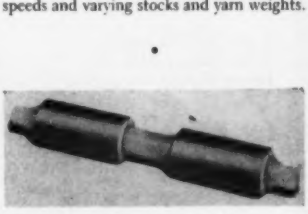
Another model is at the moment being developed to fit the Apperly-type feed.

The purpose of the compensator is to provide a means for controlling the distribution of wool fibers across the finisher card. It is believed that the heavier roving ends obtained from the center of a card rub-apron come from the action of the traveler that carries the carded web from the first card across the finisher-card conveyor table at the back.

By means of an eccentric sprocket, a variable-speed drive is obtained for this traveler. The traveler slows down as it approaches the sides of the conveyor and accelerates as it approaches the middle. Consequently, it deposits more weight of wool at the sides and less in the middle.

The variable-speed device is adjustable and allows adequate control for machine speeds and varying stocks and yarn weights.

•



Nylon-Bearing Rolls Eliminate Lubrication

"Cleandraft" non-lubricating top rolls that need no lubrication are a new product of Industrial Plastics, Inc., 21 Vernon St., Whitman, Mass. The roll is designed for back and middle lines of cotton spinning and is produced by a new method that integrally molds nylon into a complete roll that contains a steel core.

No oiling is needed and cleaner yarn results, as well as savings in lubricant and lubricating effort. Roll picking and cleaning are also greatly reduced. "Cleandraft" rolls are made for back and middle lines of all standard and long-draft cotton spinning systems.

One large textile-machinery manufacturer now uses these rolls as standard.

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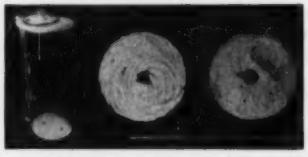

Use Full Capacity of 14-in. Cans With This Unit

Coiler-conversion units for adapting card and drawing-frame coilers to use 14-in. cans are now being made by Southern States Equipment Corp., Georgia, Ave., Hampton, Ga. Conversion to the larger cans is said to give 36% more volume than a 12-in. can.

•

"Hinged-Center" Spinning Tape Raises Production

Allowing a total of six claims, the U. S. Patent Office has granted a patent on a tape of new construction for driving spindles on spinning frames and twisters. This tape, named the "Over-Drive," was designed and perfected by Alfred K. Landau, Newtonville, Mass. Patent rights have been assigned to Lambeth Rope

Corp., Tarkin Hill, New Bedford, Mass.

The distinguishing feature of the Over-Drive tape is a "hinged center" that creates great lateral and longitudinal flexibility. It is claimed that this flexibility results in several operational advantages:

1. It allows the tape to follow accurately the contour of the whorl.

2. Since the "hinged center" does not contact the crown of the whorl, the driving effort of the tape is transmitted with a low percentage of "slip" to the small diameters adjacent to the crown. There is, consequently, a definite increase in spindle speed, ranging from 1 to 3%, depending on the conditions prevailing before the installation of the Over-Drive tape.

3. The "hinged center" prevents the formation of an air cushion at any point in the driving area, since the entrapped air will pass freely through the hinge. Consequently, on the lead-off side, there is no vacuum to break, because the air will pass readily through the thin center.

•

Durable Base for Skewers

A plastic skewer base that offers several advantages has been announced by Monti-Cello Bobbin Co., Monticello, Ga., an associate of Atlanta Belting Co., Atlanta, Ga. The base is attached to the skewer barrel by means of a screw in the base. Rotation of the skewer in use tends to tighten the connection. The two pieces can also be permanently cemented together if desired.

The base, practically indestructible under normal working conditions, gives sufficient friction at the seat of the bobbin so that roving will not slough off and lint will not stick to the base.

•

New-Tannage Condenser Tapes Resist Emulsifiers

A new tannage of leather developed especially for woolen-card condenser tapes has been brought out by James E. Hay Co., 244 Smith St., Lowell, Mass. The new tapes are called "Kroblak" condenser tapes.

The new tapes have very little stretch; so uniform tension results in more uniform ends of roving. They also provide a better division of fibers from the web and deliver stock to the aprons with no "drop off."

The new leather tannage does not react to emulsifiers that sometimes cause cracking and deterioration of the more common tannages of tape leather. The finish reduces felting of fibers on tapes and saves time required for cleaning, the manufacturer reports.

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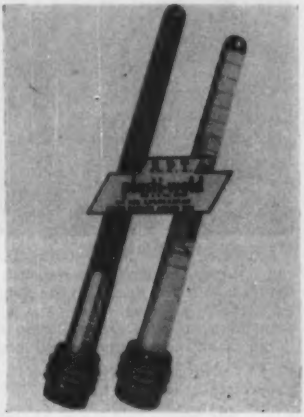

Plastic Filling Bobbin Usable With All Yarns

A new all-purpose synthetic automatic-loom bobbin has been perfected by American Paper Tube Co., E. School and Hazel Sts., Woonsocket, R. I., and Greenville, S. C. It incorporates a combination of features that allows mills to secure maximum efficiency of performance with all kinds of yarn on the same bobbin.

The new thermosetting-plastic tip is incorporated as a homogeneous unit with the barrel by means of a molding process called "Plastic-Weld," which is also used to form the base of the bobbin, with its three continuous metal rings molded into the plastic.

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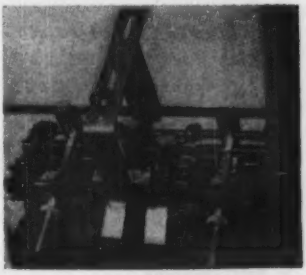


Mills Can Now Measure Roll Weighting Accurately

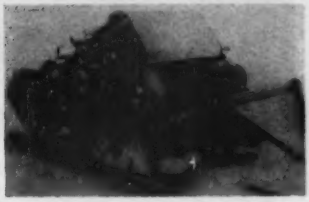
A direct weight-measuring device for both lever-and-spring weighted systems has been developed by Dixon Lubricating Saddle Co., High St., Bristol, R. I. The device can be used on both roving and spinning frames, although it was designed specifically for spinning.

The weight measurer can be used on any spinning frame that has a front and back bottom steel roll; it fits on the frame by clamping each end to the bottom steel rolls. Two saddles and two sets of top rolls must be removed before installation, and the frame must be stopped.

The device that supports the spring scale and roll yoke slides on ½-in. square steel bars between the two clamped ends, which can be placed far enough apart to measure the weight on all rolls in one roll stand. The mill can use any length of square steel bar to pick up the weight at various positions on any number of roll stands, provided the weight is not great enough to deform the ½-in. square bar.

The spring scale must pull up at the same angle as the stirrup pulls down—which arrangement means that the support for the spring must be set at the correct angle. This angle is positively held and sets itself automatically to the frame when the clamping at each end takes place.

•



German Opening, Carding, Spinning Machinery Available

A complete line of opening and spinning machinery for carded yarns, made by Textilmaschinenbau G.m.b.H. of Western Germany, is now available through Stellite American Corp., 60 E. 42nd St., New York 17, N. Y. The following machines are available and can be delivered in 6 to 8 months: rag tearers, garnetts, droussettes, pickers, cards for producing padding and upholstery filling, mules, ring spinning frames, and accessory machines.

The openers, garnetts, and droussettes can be used for thorough preparation of all kinds of waste, including wool and synthetic threads and cuttings. The machines can be used singly or in sets.

The 2- and 3-cylinder carding sets are an improved version of the Detema cards formerly made in Saxony. Cylinders are 50 in. in dia. and doffers are 41 in. Standard width is 72 in., but cards of 80-in. width are being built.

•

Long-Draft Aprons Quickly Detachable as a Unit

Complete, detachable, individual long-draft units that weigh only 5 oz. each have been developed by Macdonald & Sons, Inc., Development Engineers, Box 706, Providence, 1, R. I. Atkinson, Haserick & Co., 211 Congress St., Boston 6, Mass., is selling agent. Patents have been applied for.

Important features of the detachable

units are: (1) gears and tension roll assure synchronized apron travel, (2) tension bars snap in quickly, (3) spring-steel apron supports give uniform apron tension longitudinally, (4) adjusting screw assures straight drafting, (5) all bearings are nylon, (6) double-sealed ball bearings are at every carrier stand, (7) hook bearings are operated by the regular rack shaft, and (8) the entire unit is removable by the loosening of two thumb screws.

The roll shaft has a mortise-and-tenon joint at each carrier stand. Each spindle can be handled in a matter of seconds instead of hours. If an apron has to be removed, one simply unscrews the unit, lifts it out, puts another one in, and goes on his way in from 17 to 20 sec.

The screw in the middle at the back of the unit adjusts the height of each apron so that it will come up as close as possible to the bite of the front rolls.

•

Synchronized Clearer Brush Cleans Between Flats and Flat Ends

A circular brush with six rows of tufts on it that passes over the full length of card flats has been developed in England by Hilton's "Champyon" Brushes Ltd., Cheetham's Mills, Park St., Stalybridge, Cheshire. The brush has adjustable brackets shaped like a hook so that instant removal is possible for cleaning purposes.

Each row of bristles cleans between two flats, turning as the flats move. At the same time, the brush projects far enough out to keep the flat ends clean.

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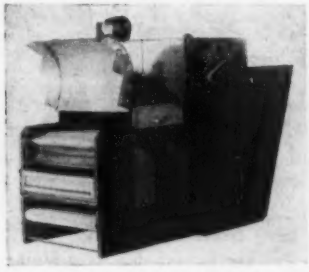


New Tinting Machine Controls Tint Application Precisely

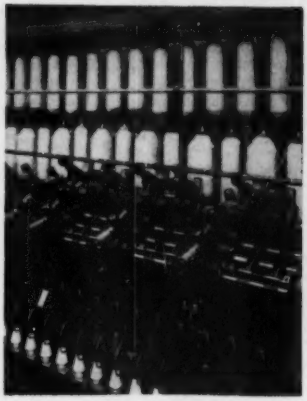
The "Unitint" machine, which receives blended synthetic stock from the blending line and feeds controlled amounts through to an all-stainless-steel enclosed tinting chamber, has been announced by Textile Equipment Corp., Box 1258, Greenville, S. C. The unit is particularly effective when used with the company's Fibermeter automatic blending system, in which flow of stock is timed to coincide exactly with the speed of the picker.

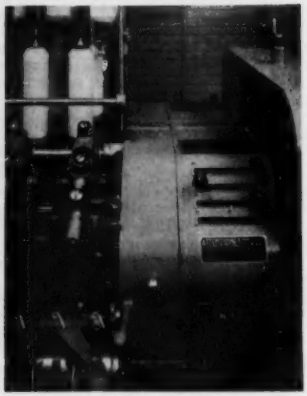
As a result, the rate of production, in pounds per hour, can be set to the rate of the pickers the line is feeding or to the rate of delivery of the blending line itself.

The percent of tint needed is figured and is then evenly applied by means of a positive displacement pump and spray nozzle.

The dryer is constructed of heavy steel plate and heavy-gauge nickel-bearing stainless steel. Shaft bearings are the sealed, self-aligning ball type. The enclosed tinting chamber is hinged, as is the heavy curved plate for ease in cleaning and changing of tint colors. Doors on both sides of the machine offer easy access to the drying belts.

Italian Cotton-Spinning Frame Available in U. S.





Spring-weighted rolls of the LaBlan-Roth long-draft system (left) are one feature of the cotton-spinning frame made by Nazionale Cogne of Italy, now available in the U. S. and Canada from Stellite American Corp., 60 E. 42nd St., New York 17, N. Y. Other features are draft-gear box in an oil bath that permits draft changes by moving a lever (right), adjustable pigtail guide said to maintain nearly constant balloon and pressure, and a drive in both headstocks. Gauges available range from 2¼-in. gauge, 1½-in. ring dia., to 4-in. gauge, 2½-in. ring dia.

•

Woolen-Card Fancy Clothing Is Self-Stripping

A self-stripping fillet of unique design for use on woolen-card fancies has been developed by Duesberg-Bosson Card Clothing Co., Main St., Jefferson, Mass. The manufacturer states that this patented fillet has been used successfully in many foreign mills.

Advantages claimed for the new fillet are an estimated 50% reduction in downtime for stripping, saving of labor cost for stripping, and improved yarn quality.

•

All-Metal Truck for Spinning Doffers Has False Bottom

A false-bottomed doffer's truck that eliminates a lot of bending on the part of the doffer has been developed by W. T. Lane & Bros., Inc., Poughkeepsie, N. Y. A wire cable attached to all four corners of the false bottom raises the bobbin level when the doffer turns the raising wheel. Ratchet-held, the bottom falls back with a single motion for refilling when the holding pawl is released.

•

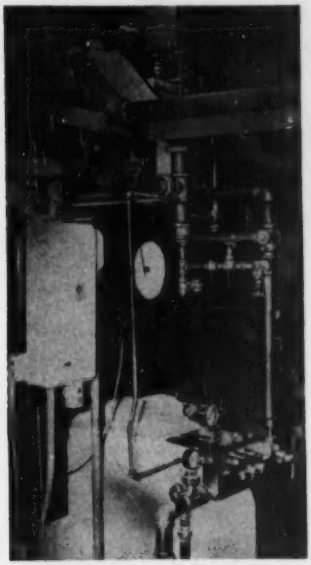
Yarn-Processing Improvements Announced by Saco-Lowell

(1) The Saco-Lowell Duo-Roth drafting element has been brought out as an improvement to increase fiber control and allow higher drafts than are possible on the original Roth drafting element. The Duo-Roth is easily and quickly applied to existing Roth drafting units at a minimum of expense and with the least amount of frame stoppage.

The changeover converts the Roth

(Continued on page 272)

Cost-Cutting Equipment Offered for...
Twisting, Winding, Warping, and Slashing



Viscosity of Homogenized Size Measured

A measuring and recording viscometer designed for use with homogenizers preparing warp size has been developed by Norcross Corp., 247 Newtonville Ave., Newton 58, Mass. The instrument measures viscosity of size as it is delivered from the homogenizer and indicates variations in size—often appreciable in different shipments. Also checked by the unit are possible human errors in preparing the size formula.

The recorder is conveniently located where adjustments can be readily made in homogenizer pressure to maintain correct viscosity.

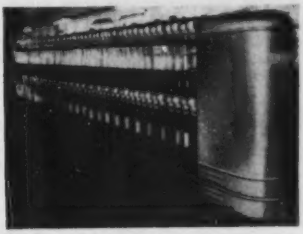
•

800 Gal.-per-Hr. Homogenizer Developed for Mill Use

A new homogenizer suitable for mill use in slasher rooms and finishing plants has been announced by Cherry-Burrell Corp., 427 W. Randolph St., Chicago 6, Ill.

The machine, known as the Model A-800-C "Superhomo," has a capacity of 800 gal. per hr. and a maximum operating pressure of 2,500 psig.

It is available with a single or two-stage valve, and all product surfaces are of stainless steel. Increased capacity has been obtained by the use of a large-diameter plunger rather than by increase of speed at the drive end.



New "Unirail" Uptwisters Have Constructional Advantages

"Unirail" uptwisters for headless package and bobbin take-up have been brought out by Universal Winding Co., Box 1605, Providence, R. I. The bobbin take-up provides a bobbin or finger-hanger operation.

Improved yarn quality, better bobbin build, simplified installation, increased production, lower power costs, less maintenance, and longer life than earlier models are advantages promised by the new uptwister.

•

Soft-Package Attachment for Winding Synthetic-Yarn High-Pressure Dye Packages

A soft-package attachment for winding synthetic yarns onto 1¼-in. dye tubes at spindle speeds up to 1,050 rpm. on No. 50 Precision winders has been made available by Universal Winding Co., Box 1605, Providence, R. I. The attachment is particularly suited for winding dye packages that go into high-pressure dyeing systems.

Delivery of the yarn should be from cones or an equally free delivering type of supply. Starting tension can be as low as two grams if the yarn being used delivers freely enough from the package supply. Then the attachment takes over to give a very close control over winding tension; and as a result, soft packages of proper density can be obtained from every spindle.

The attachment consists of a roller-bail assembly, a "close-to-package" guide, a lightweight tension lever, and a spring arrangement for pressure adjustment.

The manufacturer recommends use of the soft-pressure attachment on No. 50 winders that are equipped with a 2¾-wind gear-gain mechanism.

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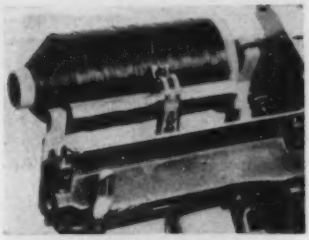

King-Spool Winder Attachment Raises Production

Increased production through a saving in operating time by improved provision for tying in ends is claimed for the "King-Spool" attachment developed by Foster Machine Co., Westfield, Mass., for the Foster Model-75 winder. The new attachment is used chiefly for winding thread yarn.

The pressure roll of the attachment is the same rate, so that the end taper of the spool is actuated by positive rack-and-pinion control. As the guide-way moves out, the package moves forward at the same rate. As a result, the end taper of the package follows the 45° taper of the base of the spool very accurately. Any length of traverse is possible up to 6 in.

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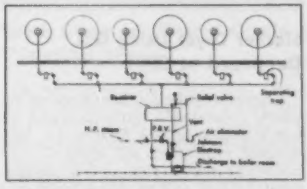

Slasher Condensate Returned Without Loss

A new cost-cutting method of returning condensate from a slasher to the boiler room has been favorably reported on by a well-known textile mill. This new system is engineered by Johnson Corp., Wood St., Three Rivers, Mich., around the Electrap, an electrically operated pumping trap.

The Johnson Electrap is a closed system,

and condensate is returned to the boiler room with heat units intact. In the installation shown in the accompanying diagram, condensate is drained from the slasher by separating traps. Condensate is discharged into the receiver at approximately 220° F.

Condensate flows into the Electrap chamber until the rising level reaches the short element. This completes a circuit through a relay that, in turn, operates the three-way solenoid valve to admit boiler pressure. This pressure forces the condensate in the chamber back to the boiler room. When the level falls below the long electrode, the three-way solenoid valve closes the inlet and vents pressure to the condensate receiver, where the condensate is held at 220° F.

Then the Electrap fills again, renewing the cycle.

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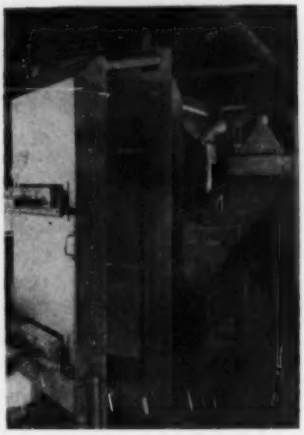

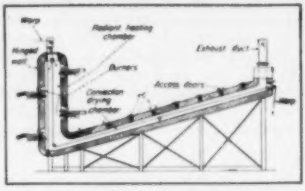

Slasher Dryer Using Gas Developed at SRRL

Engineers of the Southern Regional Research Laboratory's textile-processing research division in New Orleans, La., have designed, constructed, and operated an experimental slasher that uses a gas-fired, infrared drying unit to process warps on a pilot-plant scale—warps 21 in. wide by 300 to 600 yd. long. Infrared drying was adopted on the premise that cotton yarn will not be damaged by exposure to intense heat so long as the yarn is saturated with water. Gas was selected as the fuel because of its ready availability, high thermal efficiency, and ease of control.

The dryer is an elongated, double-walled structure in longitudinal cross-section very much like a smoker's pipe. The portion corresponding to the bowl is 6 ft. high and houses the gas-fired, radiant burners. Four burners are mounted, in staggered relationship, on opposite walls of the housing and are adjustable to move inwardly and outwardly to provide control over the intensity of the infrared radiation reaching the warp.

One wall of the "bowl" is hinged and swings outward to give access to the interior for threading up the warp and for repairing any yarn breaks that might occur during operation. The two burners mounted on this wall are fed by means of flexible metal hoses.

A 15-ft.-long inclined chamber, corresponding to the "stem" of the "pipe," connects with the lower end of the bowl and terminates at the opposite outlet end in a short vertical run leading to an exhaust duct.

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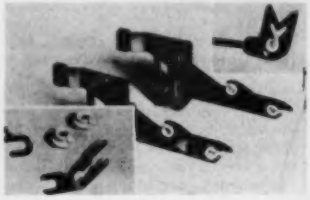

Clips Hold Guides Firmly On Abbott Quillers

A new and better way to hold guides on Abbott quill winders and detector wires has been developed jointly by Abbott Machine Co., Inc., Wilton, N. H., and American Lava Corp., Manufacturers Rd., Chattanooga 5, Tenn.

The AlSiMag guide used has a shoulder. Under the shoulder there are flat and parallel notches on each side. When the guide is placed in position, the spring clip snaps easily into place, holds the guide firmly, and prevents rotation.

This new combination of guide and spring clip is designed to assure long, continuous runs and to eliminate guide throw-outs and guide breakage from the impact of throw-outs.

The new guide and spring clips fit present Abbott winders.

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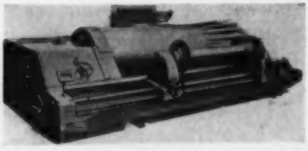

High-Speed Sectional Warper Developed in Switzerland

Speeds from 27 to 875 yd. per min. are claimed for the new sectional warper made by Benninger Engineering Co. Ltd., Uzwil, St. Gall, Switzerland.

The unit is built low to give free passage to the yarn as it is taken from the reed to the drum surface. The guide reed is placed close to the drum to insure even spacing of the warp ends as the section is wound. These improvements, together with improved lease rods and lease reeds, are said to insure high speeds without damaged or cross ends.

Drum circumference is 8 ft. 2¼ in., but it is claimed that the drum will take nearly as much yarn as one twice its size. Other advantages of the small drum are convenience in operation, minimum space, and improved visibility.

The warper is made in three types for (1) silk, synthetic fibers, and cotton; (2) worsteds and woolens; and (3) warp knitting.

•

Automatic Cop Winder Runs 6,000 Rpm.

A new cop winder, the Foster-Muschamp Autofill hosiery cop winder, introduces a new way of automatic winding, according to Foster Machine Co., Westfield, Mass. Four perfect cops are produced in one operation, and the machine is capable of continuous production with no attention beyond replenishment of the cop battery and yarn supply.

Diameter control is mechanical, with no builder wheel in contact with the yarn to cause broken filaments. Constant spindle speed up to 6,000 rpm. is possible.

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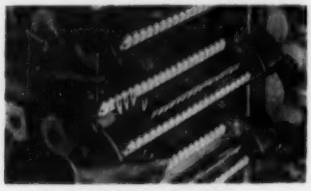

Electric Stop Motion For Any Type Cone Creel

An electrically operated creel stop motion that can be adapted to any type of cone creel has been introduced by Benninger Engineering Co. Ltd., Uzwil, Switzerland. The new stop motion is almost totally enclosed and can be used in con-

ditions of dust and fly, which in many installations hinder the operation of an electrical motion.

The new device features rising stop levers that are held in a depressed position by the slightest yarn tension and that leap upwards when an end breaks. The levers are not spring loaded but are counterweighted to eliminate variation in the amount of tension required to keep them in the operating position.

Red signal lamps are standard equipment on each bank of levers to indicate where breakage has occurred. The lights themselves are vibration-proof.

The new electric warp stop motion can be fitted to any make of creel, the separate units being mounted by a simple clamping arrangement on a vertical tube that can be fitted without difficulty to the front of the creel.

Stop-lever yarn guides are in the form of porcelain forks. In conjunction with them are used open-ended yarn guides that make threading-up easy and rapid, since all that is required is for the yarn to be laid across the guides and in the forks.

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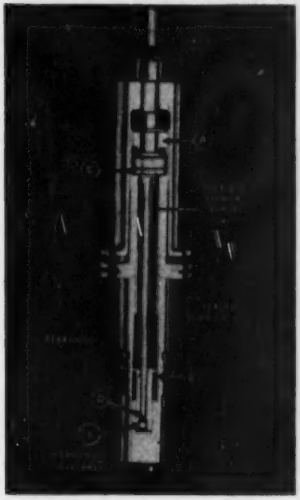


"Uniflex" Uptwister Spindle Gives Speeds to 16,000 Rpm.

A new uptwister spindle (called the "Uniflex") that promises higher uptwister production, lower power and maintenance costs, and cleaner yarn has been developed for endless belt-drive uptwisters by Universal Winding Co., Box 1605, Providence, R. I.

The advantages are designed to result from the different spindle design that permits spindle speeds up to 16,000 rpm. under satisfactory conditions. The spindle design also lowers bearing loads to a minimum, reduces oiling and cleaning cycles, and eliminates oil dispersion.

The principle feature of the Uniflex spindle design is the slender, flexible lower blade that allows off-center rotation of any bobbins that may not be perfectly balanced without the building up of excessive bearing loads. The sealed-in lubrication system eliminates free oil in the spindle step.

•

Button Guide for No. 50 Winder Has Long Life

A new all-purpose AlSiMag 192 button guide for Universal No. 50 cone winders has been developed by American Lava Corp., Manufacturers Rd., Chattanooga 5, Tenn. The new all-purpose button guide is said to have these features: (1) easily threaded, (2) yarn will not jump out, (3) exact delivery point, (4) winds large or small packages, (5) tapered or straight packages, (6) external long life, and (7) low cost.

The manufacturer states that many mills have been running guides of a somewhat similar design continuously for more than five years with no sign of wear.

Free test samples may be obtained from the manufacturer on request.

•

King-Sized Slasher Built for Carpet Mill

An extra-large slasher especially built for one of the nation's largest carpet manufacturers was recently described by the maker, Cocker Machine & Foundry Co., Gastonia, N. C.

The size box is all stainless steel, steam jacketed, with open coils inside the box. Immersion rolls are stainless steel also, and both these and the large-diameter, rubber-covered top quetsch roll have a 160-in. face.

Drying section of the big slasher is of heavy cast-iron construction. Thirteen stainless-steel cylinders, of 30-in. dia., are carried in roller bearings and are driven by cut sprockets and roller chain. The 160-in.-long cylinders also have rotary packless joints, with steam injected into both ends of each cylinder.

Thread Guide and Cleaner Easily Adjustable

A new type combined thread guide and cleaner for use on all types of winding machines has been introduced by Manchester Metal Works Ltd., 368 Bury New Rd., Salford 7, Lancashire, England.

The operator can easily govern the passage of yarn from the supply package to the delivery package by the movement of a small knurled nut on the cleaner spindle. This adjustment insures the correct positioning of the yarn during winding.

The blades of the cleaner can be set accurately to any desired gap in a few seconds without removing or altering the position of the cleaner.

•

Beam Brake for Slasher Creels Eliminates Waste

A new beam brake for cotton slasher creels, recently developed by Deering, Milliken Research Trust, that provides improved yarn-tension control and minimizes run-out waste is now available from Cocker Machine & Foundry Co., Gastonia, N. C. (patent pending).

Use of the brakes is said to virtually eliminate the expensive run-out waste that usually results from uncertain tension control on slashers. The new device replaces the rope-and-weight arrangement currently used in most slasher-creel operations.

A compact air cylinder holds out of operation a spring that operates the brake; thus the beams are allowed to turn and the yarn to run smoothly from them with a minimum of tension while the slasher is running up to speed. A solenoid-operated

air valve is employed to exhaust the cylinder when the slasher is stopped or slowed to creep speed, so that the spring is brought into operation and a braking torque applied. The mechanism incorporates means for "fail-safe" operation to insure against yarn waste or machine downtime in the event of failure of either the power or air supply.

Aside from the intangible savings obtained through better yarn tension control, analyses of savings realized in decreased yarn waste alone show that the cost of equipping a creel with the new brakes can be paid for in less than two years' operation, the manufacturer says.

•

Mercury-Switch Warper Stop Motion Acts Positively

Lint and dust normally on the electrical contact surfaces of warper stop motions can't affect this new stop motion developed by Edward J. McBride Co., Adams Ave. and Leiper St., Philadelphia, Pa. That's because each drop wire in the new stop motion has a sealed mercury switch, with two contacts, attached to it. When an end breaks, the mercury, sealed away from dust and lint, makes the contact that stops the warper. Sparking is also eliminated.

The stop motion is available on all new McBride creels and for replacement purposes on any creel now in use.

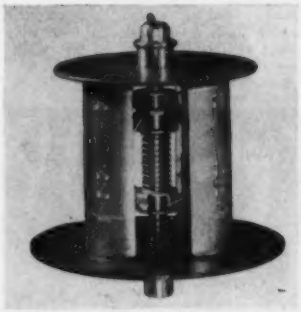
•

Attachment Increases Capacity of Cylinder Dryers

An attachment—the Shirley Accelerated Drying Device—that is said to bring cylinder dryers closer to hot-air systems in speed and efficiency was described recently by E. H. Jones of the British Cotton Industry Research Assn., Shirley Institute, Didsbury, Manchester, England. The device is particularly applicable to dryers that have a few large cylinders.

The conventional wooden hood is removed and is replaced by metal covers that fit around the parts of the cylinders that the warp contacts. These new covers are sealed at the sides. Unheated air is drawn in at the ends of the covers and exhausted through slots that run the full width of the covers and are located halfway along them. Ducts, which carry the moist air away, have dampers in them to control the rate of drying.

With the new system, the evaporation rate is said to be raised by about 60%.



Rayon Cake Holder Has Adjustable Tension

Self-centering cake holder with adjustable tension has been put on the market by Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia 32, Pa. Made of aluminum and steel, it is rustproof. Its top and bottom plates are of unbreakable plastic. Its operation is said to be so simple that only one hand is required to gain the productive speed in the handling of cakes that is so necessary today.

•

Beam Handler Operated by One Man

A beam handler designed so that one man can perform all operations of lifting, transporting, and placing the beam in the loom is being offered by Schmidt Mfg. Co., P. O. Box 560, New Bedford, Mass.

The handler lifts any beam up to 800 lb. in weight from the floor, slasher, or drawing-in frame without help from a chain fall or hoist. Lifting is done at the beam shaft, so no part of the yarn contacts the truck. Roller-bearing wheels allow the truck to roll easily around sharp corners and narrow alleys.

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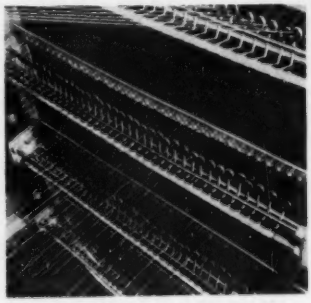


Stop Motion for Magazine Creel Improved

New drop-wire designs for individual ends have been developed for the McBride stop-motion assembly for the SRM magazine creel by Edward J. McBride Co., Inc., Adams Ave. and Leiper St., Philadelphia, Pa. The individual units manufactured of sheet metal rather than bent wire provide faster and truer action with less wear and less danger of misalignment. Eyes are inset glass or porcelain, as desired.

Higher Production in Same Space With New Slasher Dryer

A combination cylinder and hot-air slasher dryer has been developed by West Point Foundry & Machine Co., West Point, Ga. Production rate of the new dryer is said to be higher than a conventional two-cylinder dryer section, yet the "Cyl-Air," as it is called, occupies no more space.

The unit uses two cylinders (5 ft. and 7 ft. dia.) and centrifugal blowers within insulating panels. The cylinders have dished heads to eliminate the usual through-type stay rods. Stainless-steel covers are welded to the dished heads for operating pressures up to 22 psi-ga.

Air is heated by three double-row, finned-type, steam-heating coils designed for pressures up to 200 psi-ga. A triple-unit centrifugal fan circulates about 10,000 cfm. of hot air within the dryer enclosure. Air is recirculated to increase thermal efficiency. Inlet and outlet dampers regulate recirculation. Asbestos-type insulating panels enclose the entire assembly.

Dimensions of the dryer are: height, 10 ft. 10 in.; width, 6 ft. 1 in.; length, 12 ft. 9 in. Approximately 20 yd. are required to thread this dryer as compared with 27 yd. for a dryer with two 7-ft. cylinders and one 5-ft. cylinder. Production is also said to be higher.

•

Small-Model "Gentle-Air" Dryer Dries up to 750 Lb. per Hr.

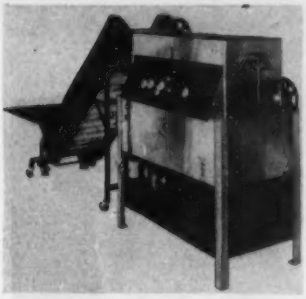
A smaller "Model-B" Uxbridge "Gentle-Air" drying unit that can be operated in conjunction with the front and back ends of any conventional slasher, new or old, has been brought out by Bachmann Uxbridge Worsted Corp., Uxbridge, Mass. It is designed for mills that do not require the drying capacity of the Model A, which dries up to 1,250 lb. per hr.

The Model B is approximately 14 ft. long, 10 ft. wide, and 8½ ft. high. It will dry up to 750 lb. per hr., depending on yarn numbers and the number of ends. Very uniform drying is said to be obtained with the unit. Roll laps in the dryer are practically nonexistent.

The new-model slasher dryer can handle section beams up to 72 in. between heads. Operation of the whole unit is simple and completely automatic.

(*Continued on page 258*)

Cost-Cutting Equipment Offered for... Weaving



Conditioning-Setting Machine Handles Bobbins or Cones

A new, simplified, and versatile cold-water yarn-conditioning and twist-setting machine has been developed by Mona Industries, Inc., 65-75 E. 23rd St., Paterson 4, N. J., that can handle yarn on bobbins and quills or yarn on cones or other large packages.

For conditioning of bobbins and quills, the yarn is fed into the machine by a conventional hopper and feeding conveyor unit.

For conditioning of cones and large packages, the mobile feeding unit is rolled aside so that the operator can feed the packages into the machine by hand.

The machines are constructed in various sizes to conform with mills' individual production requirements.

•

Flat Harness Eye Will Not Damage Other Frames

Damage to harness frames caused by crosswise-turned harness eyes on adjacent frames can now be prevented by a flattened eye developed by Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa.

The novel feature of this new Stehedco eye is that while the inside diameter of the eye is round and the same size as a standard eye, the outside is so flattened that it will not exceed the thickness of the frame, but retains its original strength.

The flattened eyes may be obtained either unbrazed or brazed.

Picker Holder Permits Parallel Adjustments, Eliminates Screws

A setscrew device that eliminates putting screws through the picker and into the stick is offered by Hardwood Mfg. Co., Greenville, S. C.

Consisting of a half-round, hollow setscrew, threaded inside or out, that is screwed into a threaded hole in the picker stick, the device works with pre-threaded sticks available from the company at no extra cost.

The rubber or leather picker goes on the stick next, in the normal manner. Then an Allen-type setscrew is screwed into the first fitting. In going in, the male fitting cuts its own threads in the picker. When the male fitting is all the way in, the picker can be adjusted up or down any part of an inch to make it parallel.

The holder can be removed from sticks when they break and inserted in new sticks, the company states.

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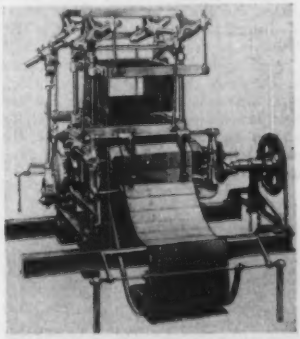

Jacquard Head Has Several Improvements

An improved, double-lift, double-cylinder jacquard for cards in Vincenzi pitch has been developed by John T. Hardaker Ltd., Bradford, England.

The woodwork supporting the needles is assembled in the machine frame as a complete unit and can be adjusted as such, if necessary, to bring the needles in line with the special light-alloy face plates that are fixed on slides on the machine sides.

A lighter but stronger structure has been adopted for the Griffe blocks that are fabricated from bright-steel bar. These blocks require less space and make a reduction in the total height of the machine.

To eliminate the possibility of the cards being turned by hand when the cylinder is presented to the needles, a clutch of special design is fitted. This clutch is also made so that no breakage will take place should the weaver not use care to see that it is in an engaged position. The hand reverse chain from the clutch down to the loom is arranged so that it is stationary when the loom is in motion.

Machine-cut bevel gearing and a telescopic shaft are employed to drive from the clutch, which is on the main shaft, to the cylinder. A smooth motion and reduced drag on the cards are said to result.

The cylinder is adjustable in all directions.

•

Take-Up-Roll Covering Sprayed With Metal

A loom take-up-roll covering called "Texalox" is a development of The Carborundum Co., Niagara Falls, N. Y. The covering is made of flexible cloth coated with evenly graded granular particles. The surface is then sprayed with a light coating of metal that preserves the granular effect and presents a hard durable surface. The coating, because of its uniform-size particles and even coating of metal, is said to present a constant gripping and holding action in all directions. The surface does not fill in and has long life.

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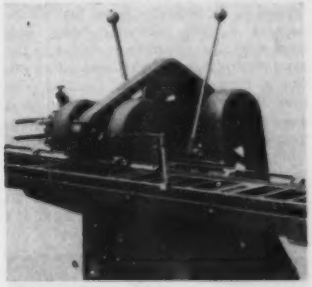

Reeds Cleaned With Warp Drawn In

Reed cleaning and polishing with the warp drawn can be done by a single machine, the German-built fully automatic Spaleck Model JD-1, which is being distributed in the U. S. by Kurt Orban Co., Inc., 205 E. 42nd St., New York 17, N. Y.

Simple to set up and operate, this compact machine uses two circular brushes

that move in opposite directions, brushing the reeds through to their full height and substantially cutting down reed-reconditioning time.

The position of one brush is adjustable to conform to the height of the reed. Horsehair or wire brushes can be used.

Once the machine is set, no manual labor is required. The reed moves automatically under the cleaning and polishing tools, without further attention. Either pitch-band and/or metal-bound reeds up to a height of 7 in. can be handled.

The grinding mechanism uses either grinding or pumice stones. Dust resulting from both grinding and brushing operations is drawn by a fan into a dust collector.

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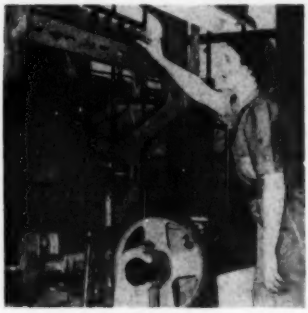

Carpet-Loom Stop Motion Has Indicator Panel

A stop motion for stopping carpet looms for various reasons and an indicator panel, to be mounted at the front of the loom, that shows the cause of the stoppage have been developed by Wilson & Longbottom Ltd., Barnsley, England. The stop motion can be applied to the pile yarn, bottom chain warp, top and bottom filling, and the knife band.

As soon as a fault occurs, a relay is tripped in the indicator panel that illuminates a warning indicating bulb. This same relay also completes a circuit to the main control panel of the loom. This circuit is, however, broken in a second position; the second break is controlled by a make-and-break cam fixed to a shaft running at the crankshaft speed of the loom. Thus, when this cam is set in any position in relation to the crankshaft, the loom can be stopped in a predetermined position whenever a fault occurs.

•

Package Replacement Unit For Sheaves Now Available

A new packaged repair unit for loom sheaves is now available from Wakefield Bearing Corp., Wakefield, Mass. The package is made up of the following items:

1. Sheaves made to mill specifications. These sheaves are of rock maple with oil-impregnated Woodex bushings.
2. Polished and ground steel shaft, fitted exactly with correct tolerances for maximum wear in smooth operation.
3. Steel washers and cotter pins when necessary.

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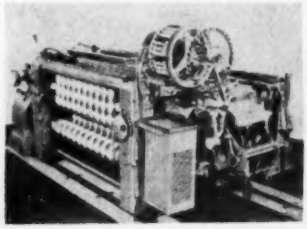

Bobbin-Changing Silk Loom Weaves Fine Colored Synthetics

An automatic four-box bobbin-changing silk loom, Type 100 W, designed for the weaving of fine fancy synthetic fabrics, has been added to the range of looms offered by Adolphe Saurer S. A., Arbon, Switzerland.

While the usual constructional principles of Saurer looms have been maintained in this new model, certain small but important alterations have been introduced to cope with the fine yarns (down to 40-den. nylon and 80-den. rayon) used in the manufacture of quality synthetic fabrics. For example, the end of yarn from the used bobbin is cut between the tip of the quill and the shuttle eye by a special cutter, and the loose end is collected by mechanical grippers and drawn out so that it cannot be carried back into the cloth.

A filling separator has been incorporated in the loom that keeps the four filling yarns separated on the drop-box end and thus prevents jerk-ins. The parallel picking motion on the drop-box end, with the picker screwed to the picker stick, eliminates soiling from the shuttle box.

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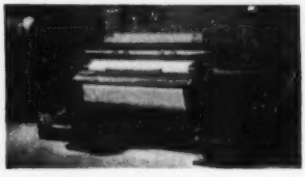

Shuttleless French Loom Runs 250 Picks per Min.

A high-speed loom, called the "Sobretex" loom, with a new type of picking arm on each side of the loom that does away with the shuttle, drop boxes, and preparatory filling winding, has been developed after 20 years of effort by Raymond Dewas, head of Société Sobretex, 120 Boulevard de St. Quentin, Amiens, France. Single-pick, pick-and-pick, double-pick, and four-filling pick-and-pick weaving is accomplished on the machine at speeds ranging from 250 to 300 ppm.

Secret of the high speeds obtainable is the system of synchronized "arms" that plunge halfway into the shed, one to lead the filling end in from a large cone located on a stand nearby, and the other to pluck the filling from the tip of the first arm and pull it through to the other side. The harness motion and beat-up of the pick are standard.

•

Eliminate Harness Cords With These Regulators

The headaches of broken, knotted, and stretchy harness cords can now be eliminated by use of a new metal harness-frame regulator available from H. J. Theiler Corp., Whitinsville, Mass. The regulators are made by Staubli Bros. of Switzerland.

Construction of the regulators permits almost infinite adjustment of height of harnesses. A spring clip with prongs at the end snaps into holes on each side of the regulator. However, these prongs are staggered the distance of half a hole, as are the holes in the regulator itself. Thus, to obtain a length adjustment of half a hole, simply remove the clip, turn it around, and reinsert it.

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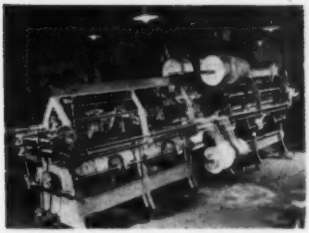
Hy-Du-Lignum Picker Sticks Available in the U. S.

Picker sticks and other picking-motion accessories, called Hy-Du-Lignum products and made of laminated birch or beech veneers, are now available in the United States from U. S. Bobbin & Shuttle Co., 135 Bradford St., Lawrence, Mass., except for C&K looms.

The Hy-Du-Lignum process embodies the building up of packs of veneers, in between each one of which is placed a thin

(Continued on page 248)

Cost-Cutting Equipment Offered for... Knitting



Cidega Machine Produces Knitted Pile Carpets

A ball-bearing-equipped flat-bed warp-knitting loom for the manufacture of pile rugs of any type of fiber and in any yarn size or ply has been put on the market by Cidega Machine Mfg. Co., Inc., River Edge, N. J. The machine's production, at 16 to 20 yd. per hr., is cited as up to four times as fast as that of similar woven rugs.

The knitting-loom lateral bars are 200 in. long over-all, so that fabric up to 180 in. finished can be knit. There are five needles to an inch. The creel above the frame is arranged to take one or two beams for the pile yarn, one beam for the backing yarn, and one beam for the warp yarn.

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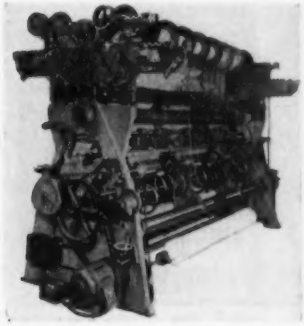

Raschel Machine Features Ease of Adjustment

The new Reiner high-speed raschel machine, Model UR-1, is the latest unit in a series of raschel machines developed by Robert Reiner, Inc., Gregory Ave., Weehawken, N. J.

The new machine is of rugged, vibration-free construction that eliminates the use of a center leg. All fast-running shafts are supported in ball bearings, and all oscillating bearings are provided with Oilite bushings. Split box cams are employed for easy setups with a cam-setting device that makes close-gauge positioning possible. Special stress has been laid on ready access to all parts, so that exchanging or interchanging has been facilitated to the fullest.

The machine is offered in 100- and 112-in. widths and in the following gauges: 24, 36, and 40. Up to eight guide bars can be used and one or two needle bars.

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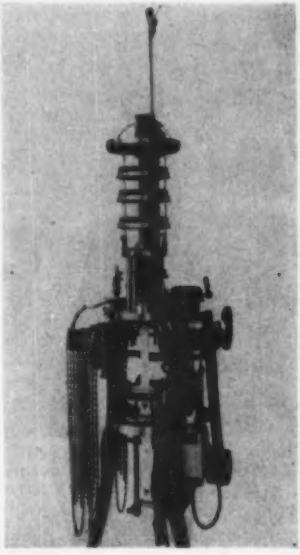


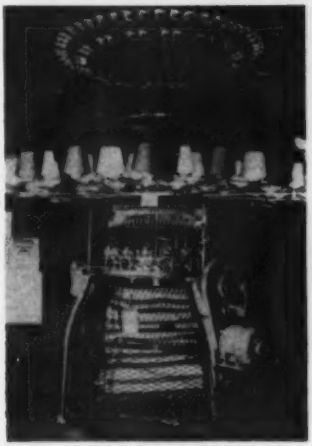
Multidesign Ribber For Fancy-Pattern Mittens

A new multidesign ribber, Model S-49G, which manufacturers wrap patterns in mittens in true rib fabric, has been introduced by Fidelity Machine Co., Inc., 3908 Frankford Ave., Philadelphia 24, Pa. The machine allows a different color to be wrapped on every needle; so with its 25-step pattern mechanism, the machine gives a virtually unlimited scope in the choice of fancy designs.

With certain types of designs, one can set up three different patterns on the machine at once and select the suitable one as needed for the day's production.

A five-color yarn selector and knot-tyer unit operates from a stationary cone supply and allows the choice of five different color stripes in any sequence. A tuck mechanism provided for shaping the mitten properly is actuated by a pattern chain.

Wrap yarns are held on compact nylon plastic spools that are easily rewound and hold sufficient yarn to last several shifts.



Automatic Terry Striper Knits Extra-Long Loops

An advanced innovation in jersey knitting, the Model LT/SA machine that knits long-loop terry stripes on beach-wear and outerwear fabrics, has been brought out by Supreme Knitting Machine Co., Inc., 105 Johnson Ave., Brooklyn 6, N. Y.

Loops can be adjusted for different lengths and can be densely packed or widely separated by means of simple pattern-wheel jack arrangements. The resultant cloth is said to be close in quality to the finest woven terries and towelings, and yet has the wearability and style of fine jersey fabrics.

The new machine is built on a standard Supreme automatic striper frame. It uses 16 four-color striping boxes and eight stationary backing feeds and produces up to 20 yd. per hr. of terry stripes and up to 30 yd. per hr. of single-color terry. The cloth from a standard 26-in., 18-needle-per-inch LT/SA machine is 60 in. wide after finishing.

The 25-in.-dia., 18-needle-per-inch unit comes with an 80-end yarn stand, an 80-end tension ring, and 80-end double electric stop motion. Other diameters and cylinder cuts, with corresponding number of feeds, are also available.

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Raschel- and Tricot-Needle-Leading Service Announced

A new needle-leading service for users of both raschel and tricot machines has been announced by The Torrington Co., Torrington, Conn., to meet increasing mill demands for Torrington needles and parts in cast-lead bases.

Complete leading, recasting, and re-

needling services are now in full operation for users of raschel machines, and similar services for tricot mills are now being placed in full-scale operation as rapidly as the demand requires.

Extension of the needle-leading service to mill customers follows closely on the development of a separate leading department to meet the demands of a number of machine builders for leader units equipped with needles and other leading parts for use as original equipment on new machines.

A full line of parts, as well as both latch and spring-beard needles, are available with precision-cast lead bases, including thread guides, sinkers, sley points, stitch combs, etc.

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32-Section 66-Gauge Machine Knits Better Nylons Faster

To meet the current trend to finer, more snag-resistant stockings, Karl Lieberknecht, Inc., Reading, Pa., has brought out a new 32-section 66-gauge full-fashioned knitting machine for women's nylon hosiery.

The new long-section machine is designed to produce a finer-textured fabric at high production levels, about 80 courses per min., which speed is approximately the same as on the company's 60-gauge machine. This speed on a 66-gauge unit thus offers hosiery mills the chance to knit stockings of finer texture on an economical basis.

The first of these machines is now in operation and production at Chipman Knitting Mills, Easton, Pa. Lieberknecht expects to go into increased production of the 66-gauge machine this fall, with the number of machines to be produced depending on the raw-materials supply situation in the months ahead.

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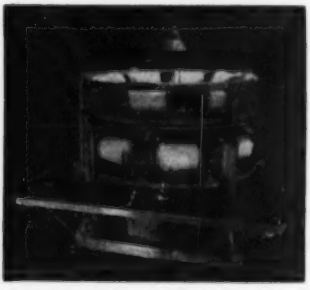

Circular Warp Loom Knits Milanese at 10 Yd. per Hr.

A diagonal circular-knitting loom for the production of milanese-type fabric in tube form for underwear and outerwear from nylon, rayon, cotton, or wool yarn is now available to American mills from Erick-Gross Corp., 64-72 W. Broad St., Bergenfield, N. J. The machine, using regular latch needles, knits in tube form, about 54 in. wide when opened out, at a speed of one rack (480 courses) per min. Cylinder diameter is 28 in., and gauges available range from 18 to 30.

The new knitting loom can turn out 10 to 11 yd. per hr. of evenly knitted fabric. The diagonal knitting effect is obtained by eight section beams moving clockwise and eight section beams moving counter-clockwise. Beams are large enough to accommodate 10,000 to 11,000 yd. of 30-den. nylon and are easily put into the machine, even by girl knitters.

One knitter can handle four of the new machines.

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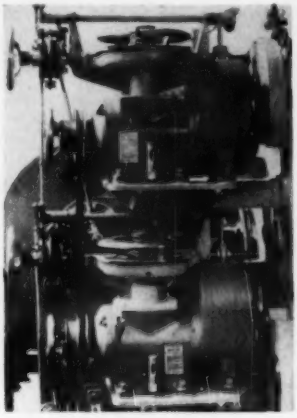

Tricot-Beam Let-Off Is Mechanical

A new mechanical beam let-off for tricot-knitting machines has been developed by Robert Reiner, Inc., 550-556 Gregory Ave., Weehawken, N. J. Since it is fully mechanical, the drive operates independently of voltage fluctuations. Moreover—since the beam is directly driven from the camshaft—rotating the machine by hand, jogging the machine from the shipper rod, and changing the speed of the machine have no effect on the amount of yarn fed.

The beam let-off consists of a stepless variable-speed drive using the principle of metallic-rolling contact. This principle allows full torque utilization over the full range of the drive, from large beam diameters and short runner lengths to small diameters and long runner lengths.

The camshaft of the machine is positively connected to the input of the variable-speed transmission through silent chain and toothed belts. The output of the transmission is geared directly to the beam. Two basic controls regulate the output speed relative to input speed.

The initial control is utilized after loading full or partially full beams into the machine. The operator measures the circumference of the beam with a tape, and knowing the desired runner length (amount of yarn desired in inches per rack), he sets the calibrated handwheel to the desired position as shown by the scales on each transmission. The warp may be threaded in and for the first stitches turned in by hand. The machine is now ready for normal full-speed operation.

The compensating control is automatic. Once having reached the desired runner length on both beams, the compensating control is inoperative except as the beam diameter decreases. In this manner, runner lengths on both beams, as well as quality, are held within close limits. Adjustments for different qualities are made in the same way as on conventional brake-operated machines.

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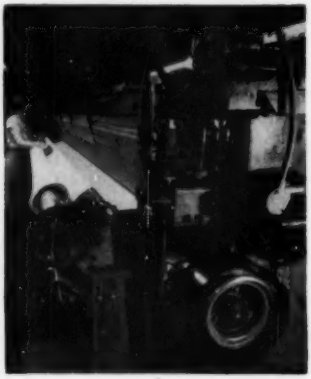
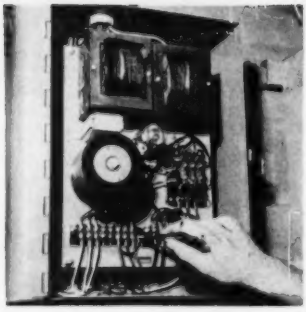




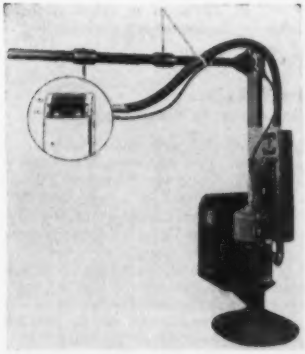
Electronic Tricot-Beam Let-Off Improves Fabric Quality

A new beam let-off for tricot machines, made by Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa., is said to be producing better-quality fabric in one mill installation. The improved quality is said to be the result of consistently maintaining proper runner lengths and having the warp supplied to the knitting elements at a constant linear speed. Fabric shading is said to have been virtually eliminated.

These drives, Westinghouse Type BD, electronically control the warp let-off so

(*Continued on page 232*)

Cost-Cutting Equipment Offered for...
Wet Processing and Finishing



Cloth Trimmer Now in Self-Contained Unit

An individual-unit Trim-Master piece-goods selvage trimmer is now available from Ginsberg Machine Co., Inc., 224 Fifth Ave., New York, N. Y.

This newest addition to the Trim-Master family has suction and clipper action compactly constructed in one self-contained unit.

The new trimmer unit can be installed next to the inspection frame and permits selvage trimming, cloth examining, measuring, and winding in a single operation.

Double-headed units are also available for fancy and upholstery fabrics.

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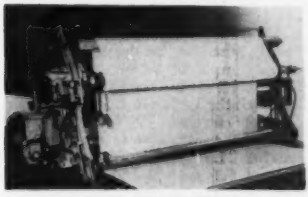

Static Eliminator and Tape Rewind Ease Tricot Spreading

Static eliminators consisting of a neutralizer bar, cable, and transformer that remove electric static from tricot-knit fabrics and facilitate the spreading of them for cutting are now being incorporated on electric tricot-spreading machines manufactured by Cutting Room Appliances Corp., 45 W. 25th St., New York, N. Y.

The electric tricot spreader handles double-folded tricot materials and utilizes positive feed rolls on the front of the machine to insure proper tension in the goods. The neutralizer bar, containing multiple pins, is set on the machine just in front of the roller and pulls the electric static from the cloth as the machine rides along. The fabric is thus easily controlled and behaves itself so that the cloth-spreading operation can be speeded up. A guard protects the pins against damage.

Another item on the machine of interest is the measuring-tape rewinder. The rewinder automatically takes up the yardage tape as the machine rides along, winding it on a bar located on the back of the machine.

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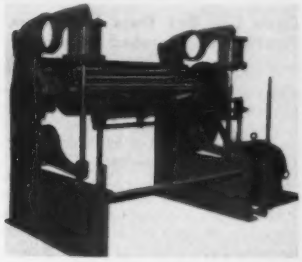

New Padder Can Be Operated Either Two- or Three-Roll

A convertible padder that can be operated as a two-roll padder with either the top or bottom roll in place, or as either a three- or two-roll padder when all three rolls are in place, has been developed by Cook-P & N Machine Co., Inc., 365 Dorchester Ave., Boston 27, Mass.

When used as a two-roll padder, a new automatic device (patent applied for) holds up the top roll. The middle-roll drive eliminates the need for a chain drive to the top roll. As a result, either the top or bottom roll can be buffed without buffing the other.

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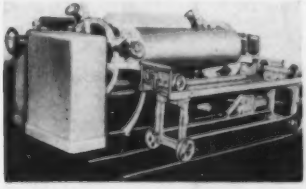

Turret Winder Increases Full-Decating Production

Gessner full-decating machines to give a production of 10 to 16 pieces per hour with one operator have been put on the market by David Gessner Co., 41 Fremont St., Worcester 3, Mass.

The usual hoist to lift the perforated rolls wound with cloth and apron has been eliminated. The rolls are transferred from the winder to the carriage, which carries them to the decating kettle by means of a revolving turret. This turret is push-button controlled and is locked securely into place at the end of each cycle.

Automatic guiding of the apron does away with any loss of time for straightening.

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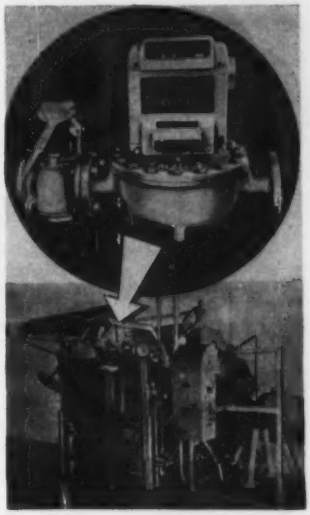

Stop Meters Optional For Soaping Systems

New optional equipment for soap-distributing systems made by Riggs & Lombard, Foot of Suffolk St., Lowell, Mass., is the Neptune "Auto-Stop" meter, which can be set for a given number of gallons and then will automatically shut off. The Neptune Auto-Stop meter is said to save ingredients, control formulas accurately, improve housekeeping, and provide accurate cost-accounting figures.

To operate, the tripping mechanism on the register is first set by pushing the buttons on the register until the number of gallons desired shows up on the setting wheels just above the buttons. The register is then cleared back to zero, the valve is opened, and the operator is free to devote his attention to other jobs. The tripping device automatically cuts off the flow when the exact quantity is delivered.

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Combination Extractor-Dryer Halves Time, Space

A Stienen-Obermaier combination high-speed extractor-dryer that can cut total drying time by more than half over other

systems and that can be used by even the smallest package dyer to advantage has been developed by Standard Fabricators, Inc., 355 Walton Avenue, New York, N. Y. The quick drying done by the machine is said to mean a faster turnover of yarn in the dye house, elimination of bottlenecks, and reduction of production time by half. Only half the normal floor space and half the number of material carriers are required.

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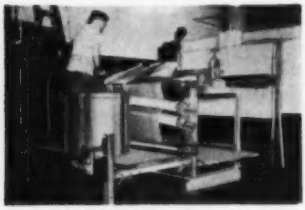

Slack-Selvage Eliminator Improves Coating Operation

A slack-selvage eliminator for use in fabric coating has been announced by Mount Hope Machinery Co., Taunton, Mass.

The slack-selvage eliminator consists of a brass spring-tension-pivoted idler roll that takes up the slack on either selvage of material being handled and two "free-wheeling" expanders that spread out and hold the material smooth and flat as it enters the coating head.

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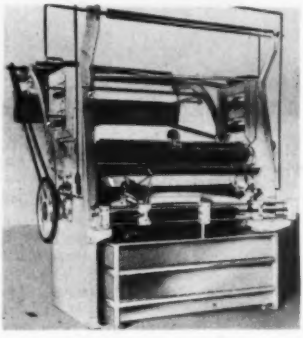

Padder Has Air Motors For More Even Pressure

A new padder that has diaphragm-type air motors has been announced by Riggs & Lombard, Foot of Suffolk St., Lowell, Mass. More even pressure from side to side is said to be assured because friction and air leakage are eliminated. Maintenance economy is an additional benefit obtained because the bottom roll is stainless steel instead of rubber.

Pressure is obtained through the use of three diaphragm-type air motors on each side. Each set of air motors is connected to a sliding yoke that comes down directly on top of the top-roll bearings. The air motors give a pressure of 350 lb. per linear inch of roll surface.

To keep the roll free from flock, a flock brush complete with flock tray is located on top and in front of the top main roll. At the delivery side of the machine is a folder that receives its drive through roller chain and sprockets from the bottom main roll. The main drive is normally through a variable-speed unit, so that cloth speed may be varied as required.

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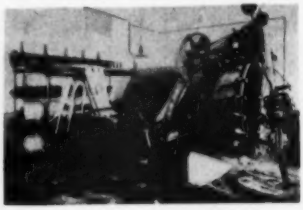

Open Gill Box Does Vigoureux Printing on Combed Sliver

A new machine for printing wool and synthetic tops and blends, combining a gill box and top-printing machine, has been developed by Officina Meccanica Sant' Andrea of Italy and is available through Ernest L. Frankl Associates, 22 E. 40th St., New York, N. Y. This combination of a gill box and top-printing machine is known as a Vigoureux machine and incorporates an open gill box that provides for perfect pin control as well as parallelization of the fibers.

The gill head is equipped with normal back and front rolls, as well as gill fallers, and has the function of parallelizing and drawing out the fibers and conveying them in an even and parallel form to the printing rolls. The rolls are equipped with diagonal grooves that print parallel stripes under pressure. The dye is applied to the surface of the printing rolls by a hard-rubber roller covered with a special felt stocking. The roller is impregnated by a second rubber roller revolving in a dye.

The arch-shaped supporting stand is attached to the delivery end of the machine where the dyed tops are allowed to dry. From there the tops are conveyed over a folding device into baskets.

Printed top is then put into an ager to allow the dye to set.

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60-In. Semi-Decater Doubles 36-In. Machine Production

A new 60-in. "Versamatic" semi-decating machine that both produces more, and can take woolen, worsted, rayon, or synthetic cloth from either a roll or fold and deliver it in either a roll or fold has been brought out by David Gessner Co., 41 Fremont St., Worcester 3, Mass. The wider unit has been in successful mill operation for some time.

Uniformity of finish is assured by automatic apron-tension control and the controlled-pressure roll, combined with automatic cycle control for both steaming and cooling.

Another feature of the machine is the automatic apron guide. From six to eight pieces of woolen or worsted and up to 1,000 yd. of rayon or other synthetic fabric can be decated at a single loading.

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Heat Exchanger Resistant to Corrosion

A newly designed heat exchanger, developed in Great Britian, is now available in the U. S. through Delanium Carbon Corp., 18 E. 48th St., New York 17, N. Y. The unit consists principally of a compact cube of Delanium carbon, a new elemental carbon product.

The new heat exchanger is much smaller than a conventional heat exchanger of comparable performance. It is of rugged construction and can be installed readily either singly or in banks. It is said to be particularly useful with corrosive liquids such as most alkalis, salt solutions, organic chemicals, and all except the most highly oxidizing acids.

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Piece Dyeing of Cotton And Synthetic Rugs With New Dye Kettle

A new dye kettle, called the TLBT-X dye kettle, has been developed by Riggs & Lombard, Inc., Foot of Suffolk St., Lowell, Mass., for the dyeing in the piece of rugs made of cotton and synthetic fibers or blends of these fibers. Of stainless steel, the kettle can be provided open or totally enclosed.

The latest adaptation of the company's standard TLBT model dyes in either rope form or full open widths. When it is used for dyeing in rope form, a stainless-steel guide keeps the pieces separated. When the rugs are run in open widths, a Riggs & Lombard Electri-Matic cloth guider keeps the fabric in open width, free from wrinkles, and centered in the kettle.

The center post that appears in the illustration here is eliminated for open-width dyeing, and the door is one piece, full length. For both types of dyeing, the reel is normally of large diameter and consists of a multigrip-type drum that insures against slippage.

The new kettle is said to eliminate tangle and tie-up by its unique design and by the multigrip-type reel.

The balance of the equipment used in the new kettle is similar to that in the

company's standard-type woolen and worsted piece-dye kettles. Information on the proper finishing of the rug-dyeing operation, details on the squeeze-roll extractor, and the application of compositions used in anchoring the pile to the base material can be obtained from the company.

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New Universal Coater Has Self-Aligning Take-Up Adjustments

A new heavy-duty coater, called the "Walco" coater, that is designed for automatic take-up adjustment by means of self-aligning ball bearings has been put on the market by L. R. Wallace & Co., 440 Seaton St., Los Angeles 13, Calif.

In addition to the self-aligning take-up adjustment, new features of the coater are (1) a new all-steel base and fully-supported frame, (2) new roll construction, (3) new pan suspension, (4) easily removable rolls, (5) new top-frame supports for good alignment of rolls, and (6) new precision-machined roll slides.

The C-1 model is standard, with the coating roll placed above the pressure roll in the same vertical plane. The small doctor roll is on the in-feed side.

Model D-2 has two spreading rolls placed one above the other. The upper doctor roll is on the in-feed side, and the lower is on the out-feed side.

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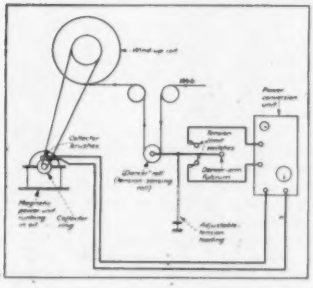

Wind-Up Tension Control Holds Speed, Tension Constant

A new tension control for winding or unwinding yarn or fabric that maintains constant speed and tension has been developed by Cadgene Machinery Co., Inc., 5th Ave. and McLean Blvd., Paterson, N. J. The tension control consists of a loop of fabric or yarn passing over two rollers and around a third on the end of the lever called a dancer arm. Tension is applied to the dancer arm by means of an adjustable spring or weight, or combination of both, and transmitted to the loop by the dancer-arm roller.

As the dancer-arm is forced up by the yarn or fabric, it actuates a voltage control that automatically makes intermittent corrections required to maintain the tension for which the unit is set. All "hunting" can be eliminated. Corrections are intermittent, and few small corrections are made on each roll.

•

New Rubber Expander Suited for Wide Range of Fabrics

Development of a 3-in-dia. rubber-covered roll-type expander for textile plants, designed to meet the stretch requirements of every fabric from light rayons to duck or tire-cord fabrics and rolled sheet plastics, has been announced by Raybestos-Manhattan, Inc., Manhattan Rubber Div., Townsend St., Passaic, N. J.

"Parocktite" bearings are permanently self-lubricating and have a low coefficient of friction. Metal parts are of stainless-steel construction; and with a thick, high-quality rubber roll cover, they provide an expander that is resistant to corrosive conditions often found in dyehouses and bleacheries.

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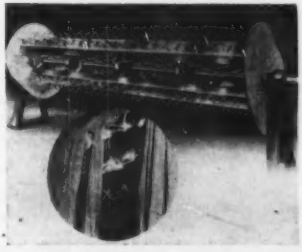

New Dye Reel Has V-Bars To Provide Gripping Action

A dyeing reel that by means of V-bars eliminates the need for providing traction by lapping or covering the dye reel has been perfected by James Hunter Machine Co., North Adams, Mass. Called the Hunter No/Lap reel, it can be installed on any make dyeback. Patents are pending.

What makes the No/Lap reel unique is said to be the arrangement of inverted V-bars that give a gentle but firm gripping action to each strand of cloth in the machine. Two rows of these bars are adjustable so that goods can be run continuously in one strand during the dyeing operation.

Bars can be raised and lowered to give proper tension to each strand of cloth. On the ends of the reel they can be further adjusted to take care of the cloth passing from one end of the reel to the other, as in spiraling.

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Dryer Air Exhaust Improves Carbonizing

Better carbonizing and cleaner fabrics are said to be two results of the design of the new "Fleet Line" steam baker developed by Riggs & Lombard, Foot of Suffolk St., Lowell, Mass. During operations, the air used in baking is completely exhausted from the machine and takes with it foreign matter and impurities.

The machine is divided into a series of vertical sections, the number of which varies according to requirements. The cloth travels over a series of rolls in vertical passes. Each section is equipped with a fin-type heater and blower at the top.

Sucked through the heater by the blower, air is pulled down through one section and up through the next, flowing in the opposite direction from the flow of goods. At the top of the machine, the air is fully exhausted together with impurities and foreign matter.

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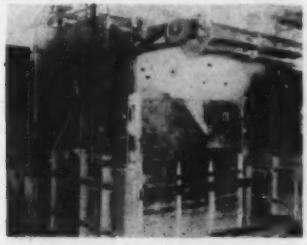

Open-Width Dye Kettle Has New Design Features

A new open-width piece-dye kettle primarily for dyeing pile fabrics and other face-finish goods in open width, plus other types of goods in rope form, has been developed by James Hunter Machine Co., North Adams, Mass.

A special feature of this dye kettle is a unique triangular reel with three tilting

bars for supporting the goods. Supported at their centers by a swivel mounting, either end of the bars tend to slope in the opposite direction should the cloth work towards one end of the reel; and thus the cloth is kept centered.

The tank conforms to standard Hunter construction of 11-gauge, Type-316 stainless steel with seams welded both inside and out. The safety-type enclosure doors slide downward below the floor line.

Included as standard equipment are a Bakelite spreader bar to keep out wrinkles when open-width goods are run, a built-in pin guide rail for goods in rope form, a spiral delivery roll, and a folder unit with stainless-steel draw rolls driven by separate gear motor that may be run only when unloading to eliminate the usual belts or chains from delivery roll to main reel shaft.

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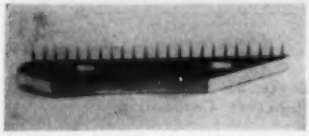

Brass Pin Plates Are Rugged

Pin plate manufactured by Southern Textile Works, 202 S. Towers St., Anderson, S. C., is of brass, but the pin can be a special type of heat-treated stainless steel that will not bend. Monel and plain-steel pins are also available. The holes in the plate are made in single or double rows, drilled to the specified angle, depending upon the type of cloth and the machine on which it operates. Pins are installed in the plate in such a way as not to loosen.

The pin plate is used on all pin-tenter machines and with Morrison plates.

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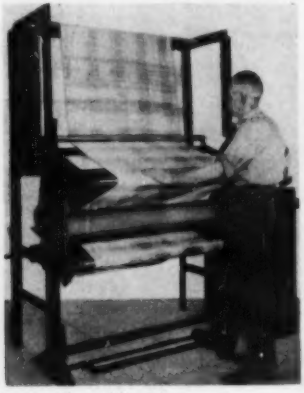

Inspecting Machine Has Variable-Speed Drive

An important feature of a new measuring and inspecting machine developed by Hermas Machine Co., Hawthorne, N. J., is a new variable-speed drive with a 6-to-1 ratio. This drive makes it possible to run at a speed as low as 17 yd. per min. or at any speed up to 150 yd. or over, with infinite gradations between these speeds. A conveniently placed lever gives fast, flexible control.

An entirely new type of back-lighting box for fluorescent lights is another feature of this new measuring and inspecting machine. A vertical back-lighting box contains the fluorescent tubes so placed behind a special plastic sheet as to give perfect diffusion of the light. Misleading bar effects from overlapping intensities of light are thus avoided.

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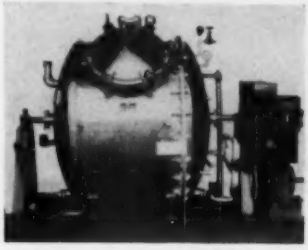

High-Temperature, High-Pressure Machine for Knit-Goods Dyeing

A rotary dyeing machine specially designed for piece dyeing Orlon, nylon, and Dacron knitted goods has been perfected by Gaston County Dyeing Machine Co., Stanley, N. C., and is now being used successfully by several hosiery mills.

This is believed to be the first successful dyer built primarily to withstand the extreme temperatures necessary in dyeing these synthetic yarns. Reports from present users indicate that the equipment operates successfully and safely at a high temperature range of from 212 to 300° F. and withstands the high pressures required.

Special features of the new dyer, which distinguish it from the open-type machine now in general use at hosiery mills, include an enclosed dyeing chamber, shut off from the atmosphere; faster indirect heating for dye bath; and extra-rigid construction features. The machine is of stainless steel construction.

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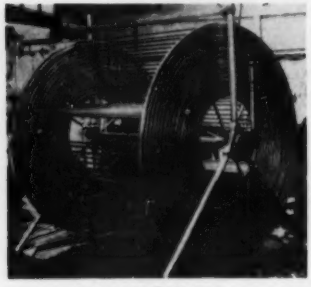

Screen-Printed Fabrics Stored on Spiral Reel

A new type of reel has been developed for storing screen-printed or coated fabrics. It picks up the fabric automatically, without touching the treated surface, and reels it firmly into a compact space in which no two layers of cloth touch each other. The machine is made by Cheskova Ltd., Mawdsley St., Bolton, Lancashire, England.

The cloth enters into the center of the reel through an arc between adjacent sets of carrying rods that are aligned as tangents to the nested cylinders. As the machine is put into operation, the central cylinder to which the cloth is first secured is rotated on a ball-bearing-mounted center shaft. As it turns, a single-tooth gear is engaged and drives the next cylinder. This process is repeated until all the cylinders have operated and the cloth is in the form of a spiral.

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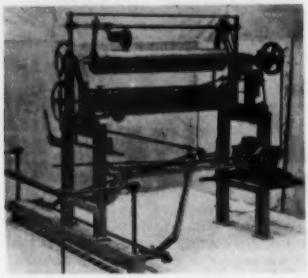

Rolling Machine Designed To Handle Warp-Knit Fabrics

A new type of rigging and rolling machine for warp-knitted fabrics has been introduced by A. & H. Simonett (Engineers) Ltd., Bradford, Yorkshire, England.

Fabric is taken from floor level and passes around the doubling frame, from which it is taken upwards over bars and around a ridged wooden feed roller that delivers it to the tube or rod on which it is to be wound. This delivery roller is driven by surface contact with a cylinder that also incorporates a measuring device.

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Railway-Type Sewing Machines Have Automatic Controls

Two new railway-type sewing machines that have automatic controls to increase production have been brought out by Dinsmore Mfg. Co., 288 Derby St., Salem, Mass. They are known as Model 11-C and Model 11-B.

Model 11-C is electrically operated by a three-button control switch to start, stop, or reverse the traveling head. The operator has instant control of the sewing because the pushbutton travels with the motor, and the motor is controlled through magnetic switches.

Model 11-B is equipped with a two-button control, which has all the features of Model 11-C except the power reverse. The sewing head and saddle are returned to the starting position by hand. Both machines are built to sew any width of fabric and to stitch any style of fabric manufactured.

On Model 11-C, all bars, levers, and parts for mechanical control have been eliminated to reduce the cost of mainte-

nance and to give a more positive drive and positive stop during sewing.

At the end of the seam, sewing is stopped automatically by a limit switch. The reverse button returns the sewing head to the starting position, which procedure allows the operator time to make up the ends of fabric for the next sewing. When the head reaches the starting position, it is stopped automatically.

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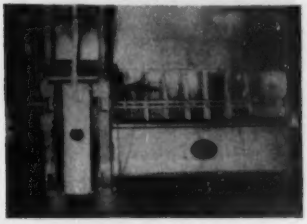

Air-Pressure Roll Loading For Textile Machinery

A new type of air cylinder called the Bendix-Westinghouse "Rotochamber" is now being manufactured by Bendix-Westinghouse Automotive Airbrake Co., Cleveland St., Elyria, Ohio. These units have recently been adapted by the James Hunter Machine Co., North Adams, Mass., for use on its line of textile machinery.

The unit is reported to be ideal for application to textile machinery because of its low cost and maintenance, its availability in a large range of sizes, and its ability to operate at any pressure up to approximately 105 psi. The largest unit made at the present time, Type 50, has a maximum stroke of 4 in.

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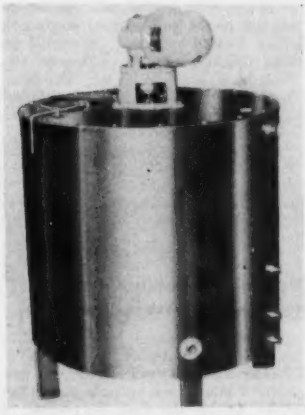

Stainless Kettles for Textile Use

A new line of stainless-steel mixing and storage kettles for warp size, backfill, dye, etc., has been announced by The Textile Shops, Spartanburg, S. C. The new kettles can be furnished with single or double-motion stirrer assemblies and with bottom and/or side steam jackets in combination with open and/or closed steam coils.

Insulated with Fiberglas and sheathed with stainless steel, the new line of kettles also has nylon foot bearings.

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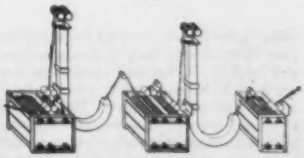

Bleaching "Rangette" Uses Tensitrol Principle

A modified bleaching range incorporating a specially designed combination Tensitrol rope washer-saturator to run at speeds of from 50 to 100 yd. per min. has been developed by Rodney Hunt Machine Co., Orange, Mass. Full benefits of tensionless handling and thorough saturation are said to be obtained with the overdrive principle of Tensitrol washing.

The range is geared to a simplified drive arrangement that does much to reduce both initial and operating costs. Components can be set up in a variety of different groupings to fit customer requirements. The company offers a choice of Becco or Du Pont-type J-boxes.

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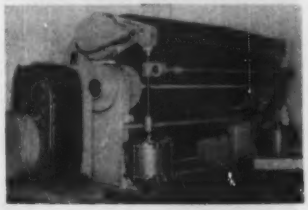

Squeeze-Roll, Padder Combines Ruggedness, Versatility

A new heavy squeeze-roll unit for fabric up to 50-in. face that may also be used for padding has been announced by Birch Brothers, Inc., 35 Kent St., Somerville 43, Mass. This machine is fitted with a top rubber-covered roll and bottom stainless-steel roll, both mounted in self-aligning spherical roller bearings. The pressure is applied by air cylinders with individual pressure controls for each cylinder. The amount of pressure may be from 1 to 15 tons. The drive is from a motor through a variable-speed unit.

The new unit is exceptionally rugged and is designed so that the rolls do not have to be crowned.

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New A.C. Electric Guider Is Sensitive to 1/50 Sec.

An electrically operated cloth guider that plugs into any 110-v., 50- or 60-c. a.c. system has been added to the line of air and mechanically operated guiders made by Guider, Roll & Service Co., Box 3747, Daytona Beach, Fla. The new guider opens and closes the metal and rubber rolls in 1/50 sec., thus insuring accurate guiding.

Other features of the guider are rapid adjustment of pressure between the metal and rubber rolls and of the distance that the rolls open. The operating switches can also be replaced in a few seconds. The switches are equipped with newly developed arc suppressors, which the makers claim give them almost unlimited life.

The new a.c. guiders fit on existing stands.

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New Dyebeck Has Improved Cloth-Handling System

A newly designed dyebeck, the Series 52, that has two reels instead of a single oval reel has been developed by Rodney Hunt Machine Co., Orange, Mass. The new dual-reel and plaiter cloth-handling system eliminates cloth slippage and surging, the company states. The need for wrapping the oval reel formerly used is also eliminated.

The new unit has been extensively tested, it is claimed, and has successfully processed a wide range of fabrics, from heavy felt to nylon tricot.

The two driven round reels are synchronized to carry the cloth in an even, tensionless manner; and a crank-type plaiter, located beneath the back reel, controls plaiting to desired lengths. The smooth operation is particularly advantageous for obtaining high cloth speeds on shades that tend to dye unlevel.

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Union Special Adds Three Machines for Mills

Three new machines of interest to textile mills producing their own garments, such as underwear, or other products such as sheets and pillowcases have been developed by Union Special Machine Co., N. Franklin St., Chicago, Ill.

The new additions to the company's 50,000-series flat-bed seamers are:

Style 54200 B: a streamlined four-needle machine, equipped with close-coupled top-driven puller, for attaching woven elastic to boxer-type shorts, children's play suits, boy's trousers, and similar garments. It can also be used as a two-needle or three-needle machine.

Style 52700 BN; for attaching elastic

(*Continued on page 280*)

Cost-Cutting Equipment Offered for... Materials Handling

New Tractor Designed For Narrow Aisles

A motorized tractor that automatically engages various types of industrial trailers and will permit operation in very narrow aisles has been announced by Yale & Towne Mfg. Co., 11,000 Roosevelt Blvd., Philadelphia 15, Pa. The new tractor can grab the end of a caster-type trailer and make a right-angle turn with the fixed axle of the trailer as the center of the turn.

Called the "Grip-Tow," the tractor, in operation, is driven to the end of the trailer, and a hook on the tractor engages the lower side of the trailer frame. The hook then pulls the trailer into intimate contact with the tractor. Then a pair of secondary hooks grabs the top part of the trailer frame for additional strength.

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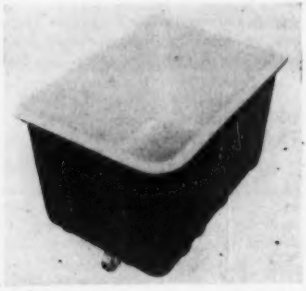

Fiberglas Truck Molded in One Piece

A new line of molded Fiberglas trucks has been developed by Laminex Corp., 994 Jefferson St., Fall River, Mass. Lightweight and easily cleaned, each truck is molded complete in one piece. Unit molding eliminates the need for rivets, bolts, nuts, screws, or other fastening devices likely to snag such materials as yarns and fabrics. A rounded reinforcing top rail is built in, and vertical ribs are built in to supply extra strength. The result is a strong, smooth interior and exterior finish with controlled wall thicknesses. All horizontal and vertical corners have a gently curved radius that makes draining and cleaning easy.

Propelled on easily replaceable casters of several choices, Laminex molded trucks are provided in a range of sizes from a small lace-yarn model to a large dyehouse truck capable of handling 3,500 lb. of wet goods.

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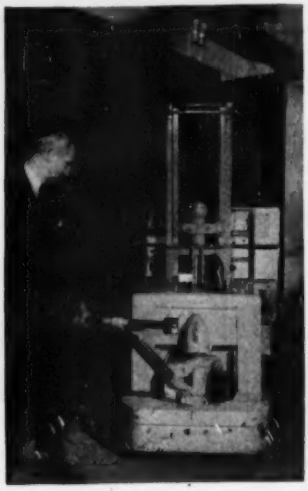

Rubber Door Bends When Hit by Trucks

Here's the answer to the problem of swinging-door damage caused by trucks in textile mills. A swinging rubber door, so light and flexible that it can be bent to a right angle, has been developed by the Stic-Klip Mfg. Co., Cambridge, Mass.

Actually a reinforced-rubber air container, the door is constructed of an outer layer of heavy-cloth-inserted rubber that covers a "frame" of 2-in. rubber tubing. Support and resiliency are provided by 15 to 25 inflated rubber bladders. These bladders, running crosswise inside the rubber facing, are positioned between rubber spacers and are inflated by a hand pump through protruding valves.

Though the door is only 2¼ in. thick, it has high insulation value, a smooth outside surface, and so little inertia that the pressure of one finger opens it. It is suspended on hinges attached to steel strips running along one side.

"Wide-Spread" Clamp Has 69-In. Spread

The clamp developed by Clark Equipment Co., Industrial Truck Div., Battle Creek, Mich., for use on its electric and gas-powered 2,000-lb. fork-lift trucks in handling cotton bales and similar items has been redesigned to incorporate several improvements.

The inside diameter of the "Wide-Spread" clamping cylinder has been increased to 2¼ in. to permit clamp operation under lower proportionate working pressures, with a top limit of 1,000 lb. psi. Increased efficiency and longer life of the mechanism are the advantages cited.

In addition, maximum clamp-arm spread has been increased to 69 in., but the overall width of the assembly remains at 40 in. Minimum clamp-arm spread is 19 in. The clamp arms have lugs to prevent slippage in bale handling.

•

Full Visibility for Operator Of This Fork Truck

An improvement on the ordinary sit-down-type fork trucks that allows the operator to change his sitting position for either forward or reverse operation has been developed by Lewis-Shepard Co., Watertown, Mass. With the "Standrive," the operator can trail his load with full visibility and can drive faster with far less danger of accident.

The savings obtained from clear, unobstructed vision, without stretching and straining by the operator to see around loads, are said to increase both driver and truck efficiency to a remarkable degree.

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Optional Counterweights Improve Lift-Truck Versatility

Engineering changes in the Model-20 lift truck made by Hyster Co., 2902 N. E. Clackamas St., Portland 8, Ore., will now permit a much more versatile use of this truck. At the same time, the problem of carrying around a lot of heavy counterweight not normally needed on average jobs in textile mills is solved.

New upright assemblies and new load-arm pins permit the use of optional additional counterweights on the standard 2000-lb.-capacity model, so that load

(*Continued on page 224*)

Cost-Cutting Equipment Offered for...
Waste Handling, Accessories, and Supplies

Metallizing Done 40% Faster With New Gun

Two new metallizing guns have recently been announced by Metallizing Engineering Co., Inc., 38-14 30th St., Long Island City, N. Y. The new guns, Metco Type 4E for machine-element work, and Type 5E for corrosion-protection coatings, are said to develop the highest spraying speeds yet available in guns designed for hand-held operation.

The new guns are said to provide the nearest thing to automatic operation yet devised. Incorporated in the guns is a patented jet-siphon principle in the gas head that automatically compensates for variations in gas pressure as high as 10 lb. and provides a steady, unvarying flame that produces uniform coatings at lower cost than previously was possible.

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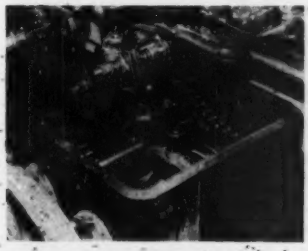

Lapper-Reversing Unit For Garnetts Eliminates Belts

A lapper-reversing mechanism for use on batt lappers in garnetting operations has been developed by James Hunter Machine Co., North Adams, Mass.

The "Huntermatic" is driven by two V-belts directly from the last main cylinder of the garnett and is designed for uniform carriage-reversal and elimination of the usual troubles encountered in belt-reverse mechanisms. Designed for installation on any make of lapper, the unit is now in use in several garnetting plants and is said to have proved to be an efficient, dependable unit that will produce uniform batts.

The reversing mechanism consists of a drive shaft, coupling elements, oversize multiple-disk friction clutches, and ball bearings, all immersed in oil and enclosed in a sealed unit.

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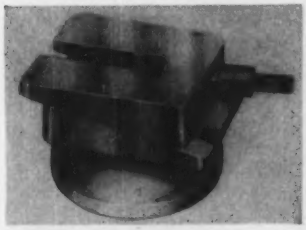

Wedge-Leveling Jacks Insure Machine Alignment

The Gy-A-Liner, a wedge-leveling jack available in four models for different uses, has been developed by Gy-A-Liner Mfg. Co., 20 Tobin Ave., Revere, Mass. The leveling jacks can be used when it is necessary to level machines bolted to the floor and when it is necessary to have a driving or other shaft working on a true center. Model O-L can be bolted to the floor.

Sizes vary from 3x5¼ in. to 4¼x4¼ in. Maximum heights are from 1¼ to 2¼ in. Loads that can be handled by various models of the jacks are from 5,100 to 10,000 lb.

•

New Fluorescent-Lighting System Gives 40% More Light

A "radically new" fluorescent-lighting technique has been devised and placed in operation by the Lamp Div., General Electric Co., Nela Park, Cleveland, Ohio.

Applied first at the U. S. Department of Agriculture's Plant Industry Station at Beltsville, Md., the technique involves the use of a lighting system whose slimline fluorescent lamps operate on 360 rather than the conventional 60 cycles.

A major benefit is reported in the form of a 40% increase in the amount of light available from the lamps. This increase is accomplished by the fluorescent lamps being operated at a higher current than would be practical at 60 cycles.

Another important advantage of the new method is that it makes possible the substitution of tiny capacitors, weighing only a few ounces, for the large conventional ballasts weighing several pounds.

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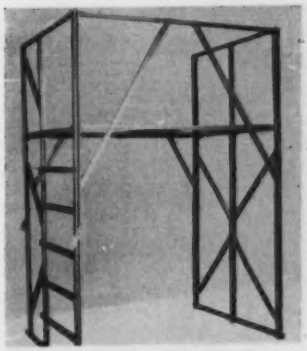

Basic Steel Framing Has Many Potential End Uses

A new steel framing material called "Mult-A-Frame" that consists of three basic units that can at any time be dismantled, adapted, or converted (without scrapping) to meet new and different uses has been put on the market by Ainsworth Mfg. Corp., Dubois and Franklin Sts., Detroit 7, Mich.

A mill need not scrap "Mult-A-Frame" materials, because there is no nailing, drilling, or welding. Standard lengths are available that are cut with a saw and assembled with a common wrench. Dismantling with the same wrench is easy and quick if one wishes to use the material for new uses or to store the units away for future use.

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Mineral-Wool Blocks and Felts Insure Low Boiler-Heat Loss

To insure low heat loss through boiler settings and long insulating life at high temperatures, Riley Stoker Corp., 99 Neponset St., Worcester, Mass., is using a combination of mineral-wool blocks and mineral-wool felts for steel-clad insulated casings on its line of steam-generating units.

The blocks and felts are applied as follows. The 3½-in. water-wall tubes, on 5-in. centers, are covered with T-tile that is secured with high-temperature air-setting

cement. Two-in.-thick mineral-wool blocks, 12x18 in., are stacked against the tile with all edges staggered. Then 24x24-in. mineral-wool felts, 3½ in. thick, are placed over the blocks. To secure both layers of insulation permanently, the felts are compressed about ¼ in. when the 10-in.-gauge steel casing is installed.

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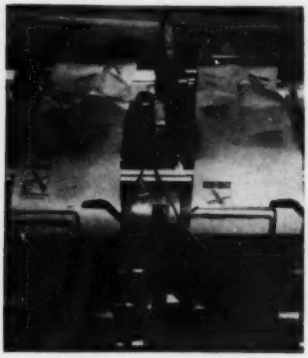

Rust-Inhibiting Wrapper Protects Machines

Textile machinery shipped by Universal Winding Co. is protected from rust by "Vapor Wrapper" a product of Nox-Rust Chemical Corp., 2480 S. Halsted St., Chicago, Ill. Here a winding machine is shown partially wrapped with the material impregnated with the volatile rust-inhibiting chemical, Callex. Callex inactivates moisture in the air surrounding packaged parts and renders it non-corrosive.

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Wooden-Sole Shoe For Dyehouse Workers

A new wooden-sole shoe developed by Stahmer Shoe Co., Davenport, Iowa, is designed to protect textile worker's feet from water, chemicals, and acids prevalent in many dyehouses and other wet-process departments. This shoe is said to have proved satisfactory under severe tests.

The dyehouse shoes have a 1½-in. thick close-grain sanded maple sole. For comfort and ease in walking, the sole is shaped to fit the foot and is covered with a soft-cushion inner lining. A patented copper-wire process securely fastens the sole to the heavy leather tops. Double stitching and rivets at the points of strain reinforce the sturdy uppers. A pearl-gray suede gusset or tongue keeps out dust, dirt, and liquids.

Fiber Roll-End Protector Half the Weight of Wood

A new end protector for carpeting that is shipped in rolls has been developed by Armstrong Cork Co., Lancaster, Pa. The protector is lighter, more inexpensive, and more easily handled than those generally used by carpet mills heretofore. The protector is made of Temlock, a tough fibreboard impregnated with asphalt for extra strength.

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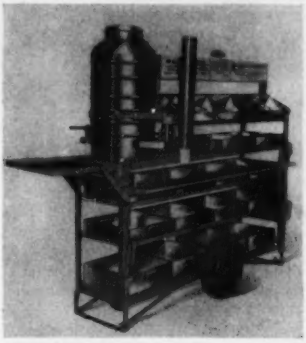

Mobile Canteen Can Serve 150 in 30 Min.

This lunch dispenser is designed to reduce the valuable time lost while employees wait in line for refreshments some distance from their work. Maker is Vacuum Can Co., 19 S. Hoyne Ave., Chicago 12, Ill.

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Rust-Inhibiting Fixtures Designed for Humidified Areas

A new line of industrial lighting fixtures, designed to provide the toughest possible resistance to oxidation in installations where extreme humidity and other adverse atmospheric conditions prevail, has been brought out by Gibson Mfg. Co., 1919 Piedmont Circle, N. E., Atlanta, Ga.

The new line includes models in 4-, 5-, and 8-ft. conventional types for bi-pin lamp and 4-, 6-, and 8-ft. mono-pin slimline, both 2- and 3-light. "Parabolite," the top quality unit in the series, is wired with turret sockets and is available in all porcelain or all high-baked enamel, as needed and specified. A medium-price and shallow-channel series is also available.

•

Waste Machine Redesigned

The W-6 waste machine is now being made instead of the older W-3 model, according to Saco-Lowell Shops, 60 Batterymarch St., Boston 10, Mass. The new machine is made of fabricated steel (instead of cast iron) and uses 16-in. cylinders (instead of 30-in.) on which securing bands have been eliminated.

Better opening is said to result with the smaller cylinder. Cylinder speeds have been increased to 1,390 rpm. for each section.

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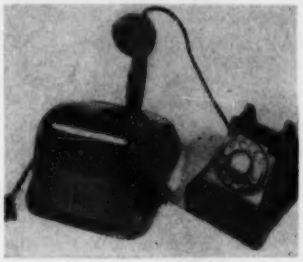

Device Acts as Loudspeaker For Phones

Addiphone, sold by Exim Trading Corp., 11 Broadway, New York 4, N. Y., when plugged into a 110- or 220-v. line, permits using the phone without holding it. The incoming conversation can be heard through the loud speaker, and its volume can be controlled. The device is useful when rates are to be made, when conversations are to be recorded, etc.

•

Thread-Waste Cutter Designed for Synthetics

A cutter designed to meet the problems of cutting the new synthetics and other thread wastes has been developed by Taylor, Stiles & Co., Riegelsville, N. J. Among its features is a 24-in. revolving knife cylinder that mounts two knives at opposite sides of the cylinder. This feature allows room enough for the uncut material to pass freely without jamming.

This new development is important when cuttings are long, as the material does not tend to blow back away from the knives.

A long feed roll, with bearings entirely outside the guide box and with ends shaped to urge the fibers toward the center line of the cutting element, also tends to "position" the fibers correctly for cutting and to prevent any possible winding of fibers around the feed-roll bearings.

•

Polisher and Degreaser Handles 25 to 40 Quills per Min.

A new automatic quill polisher that performs a three-phase polishing operation to produce a smooth surface, clean grooves, and a high luster without the use of harsh abrasives on the quills has been developed by Glenwood Machinery Associates, Inc., 384 Glenwood Ave., East Orange, N. J. The unit can also clean the rings of rust and dirt. No operators are required to feed the machine, which is placed in such

(*Continued on page 264*)

Cost-Cutting Equipment Offered for...
Regulating, Controlling, Measuring, and Testing

Portable Moisture Meter Accurate to ½ of 1%

A new low-priced, portable moisture meter that weighs less than 4 lb. has been developed by Mona Industries, Inc., 65-75 E. 23rd St., Paterson, N. J. It is recommended for use on cotton and rayon and blends thereof, in fiber, sliver, roving, yarn, or fabric forms.

The moisture meter is of rugged construction that will withstand unavoidable routine abuse under practical working conditions in the mill. It is said to be accurate within ½ of 1%.

The application is extremely simple, and the percentage of moisture is indicated instantaneously. An all-rubber, molded electrode handle assures more accurate readings and more convenient application.

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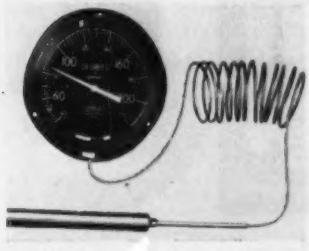

Dial Thermometer Meets Dyehouse Requirements

A new model "lifetime" dial thermometer, designed specifically for the requirements of modern textile dyeing and finishing, has been introduced by The Foxboro Co., Foxboro, Mass.

The new uniform-scale thermometer is a stock item with a standard 10-ft. length of tubing. It is available with either a plain-neck bulb for open-tank mounting or a union-neck bulb for use whenever a screwed connection is desired. Movement is of stainless steel; case is a corrosion-resistant aluminum alloy; bulb and tubing are of Type-316 stainless steel.

As a result of this construction and a vapor-tight seal for the case, the instrument is completely protected against corrosive vapors and liquids.

Temperature measurements range from 40 to 220° F.

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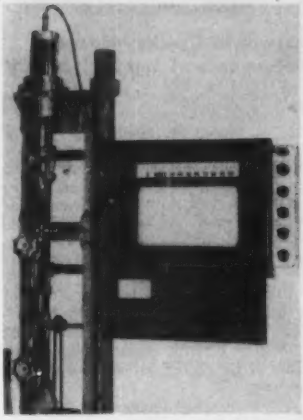

Electric Weighing Device Replaces Scott Pendulum And Recorder

An entirely new electrical weighing system for application to existing Scott testers of the pendulum type is announced by Scott Testers, Inc., Providence, R. I.

The new inertialess weighing system replaces the conventional pendulum-type head and recorder and converts the tester from constant-speed-of-pull operation to constant-rate-of-extension.

Resistance of the specimen, or load, is absorbed by the deflection of an elastic spool, which is converted to a voltage and measured by a potentiometer with recording chart. On the chart, extension of the specimen is shown vertically and load is shown horizontally. Inasmuch as chart speed and clamp speed are both time functions, the chart becomes a stress-strain diagram directly, with either variable, load or extension, magnified or condensed as desired.

Main advantage of the Scott inertialess weighing system is that inertia is practically eliminated from the weighing mechanism. The improved sensitivity reflects the behavior of the specimen in more minute detail, particularly when minute changes are magnified as described above. It is also now possible to apply a constant rate of extension (the elastic spool of the weighing head elongates only 0.0015-in. maximum, a negligible consideration). The flexibility of drive and recorder rates and wide range of chart speeds available permit new studies of progressive test stages.

Application of the new system to existing Scott testers is simple. Conversions are available from 0.1 to 1.0 lb. to 400 to 2,000 lb. The change from one capacity to another is readily accomplished by changing the elastic member rather than the entire head. This again can be accomplished by nonmechanical personnel, without special tools.

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Machine Performance Recorded in One Location

New tachometer kits, containing all the components necessary to provide instantaneous and permanent records of machine performance at one central location, have been announced by General Electric Co., Meter and Instrument Dept., Schenectady, N. Y.

Four kits are available in the new line. A typical installation includes a d.c. generator, an indicator, a switchboard-type tachometer recorder, and (where continuous run of material is produced) a break detector.

Audible or visual alarm systems are optional accessories.

•

Portable pH Meters Are Compact, Rugged

Battery-operated pH meters that are said to be highly accurate are available from Fisher Scientific Co., 717 Forbes St., Pittsburgh, Pa. Routine work with the new units is said to be accurate within 1/10 of a pH unit.

Two models of the new meter are available—N-1 and N-2. Both operate for less than 2¢ per hr. and warm up in less than 10 sec. Both are supplied with buffer

solution, KCl solution and crystals, cleaning tissue, glass beaker, electrode holder, reference electrode, and the new Beckman glass electrode.

Model N-2 also has a thermometer and plastic bottles for water and buffer.

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Accessories for Instron Tester Improve Versatility

Versatility in testing is the keynote of several accessories announced by Instron Engineering Corp., 2 Hancock St., Quincy 71, Mass. Load-deformation, cyclic, and relaxation data can now be obtained for compression testing as well as tensile testing. Mechanical properties of the test specimen can be further evaluated by the use of simple jigs and fixtures to carry out torsion and flexural measurements.

An auxiliary crosshead is attached to the frame below the moving crosshead. Compression-type load cells have a rigidly attached load-sensitive table. The sample is compressed between this table and the crosshead.

The full scale of compression tests available with three interchangeable load cells is from 20 g. to 5,000 lb.

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Method for Measuring Elastic Recovery Available

Government textile specialists who developed an apparatus and method for measuring elastic recovery of fabrics have made their invention available to public use by means of a public-service patent, granted September 25, 1951. Hazel M. Fletcher and Arnold M. Hansen developed the invention to aid in their research on elastic properties of knit fabrics at the Bureau of Human Nutrition and Home Economics, U. S. Dept. of Agriculture, Washington, D. C. The U. S. patent is No. 2,568,731.

The equipment is operated by applying tension to a fabric with a systematic series of weights pulling the material lengthwise or crosswise or both at once. After each successive increase in tension, the operator returns tension to the minimum, just sufficient to hold the fabric taut without distortion. The equipment can be constructed from information on the patent description. Only a small amount of tooling is necessary.

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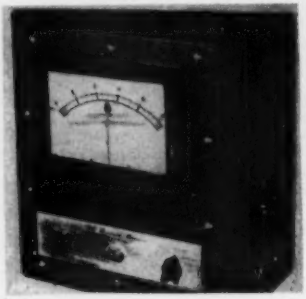

Instrument Checks Moisture Performance of Slashers

A moisture indicator has been developed by Strandberg Engineering Laboratories, 416 W. Market St., Greensboro, N. C., that not only shows the moisture content of the warp coming off the slasher but also can be used to provide instantaneous indications of various troubles encountered in slasher operations. To obtain this latter information, the detector element of the instrument must span the entire width of the warp.

Utilizing the relation between moisture content and electrical conductivity of materials, the instrument requires the use of a metallic detector insulated from the frame of the slasher but in contact with the warp.

Any trouble that causes a disruption in the smooth flow of the warp is indicated by an abrupt movement of the indicator toward the wet end.

The instrument operates continuously.

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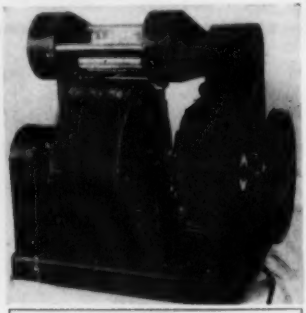
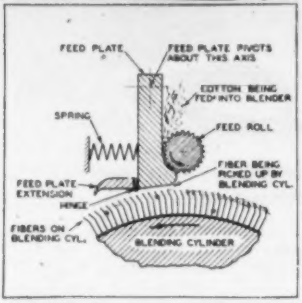
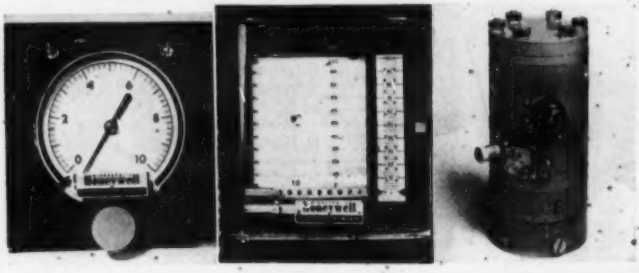




Mechanical Cotton Blender For Testing Laboratories

Effective blending of cotton samples is said to be assured with a new machine developed by the Cotton Branch, Production and Marketing Administration, U. S. Dept. of Agriculture, Washington 25, D. C. The blender was designed to handle



New Controller Fits Into Tel-O-Set System

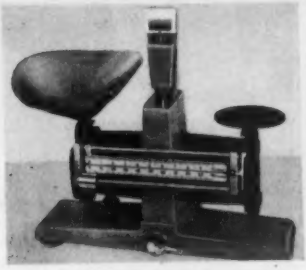
A new instrument that provides sensitive control of flow, temperature, pressure, liquid level, and other process variables has been developed by Minneapolis-Honeywell Regulator Co., Brown Instruments Div., Wayne & Windrim Aves., Philadelphia 44, Pa.

The device, the Tel-O-Set controller, is for use with a differential converter, indicator, and recorder.

The controller works on the pneumatic-balance principle, which eliminates friction and lost motion. Two types are available—the fixed proportional band and the adjustable proportional band. Except for manual adjustments of reset on the fixed-band unit, and reset and proportional band on the adjustable-band unit, both controllers operate entirely in response to pneumatic signals.

a 10-g. sample, and the new method takes about an hour to make eight samples. Hand methods take about 20 times as long for comparable-weight samples.

Principal feature of the motor-driven mechanical blender is an adjustable feed plate in combination with a fluted feed roll that feeds a sample into a rotary blending cylinder covered with stripper-wire clothing. The feed plate extends part way under the feed roll, its nose projecting toward the blending cylinder. An extension plate, hinged to the bottom of the feed plate, provides a means of adjusting for long-staple cotton (over 1 in.).



New Torsion Balances Cut Weighing Time 80%

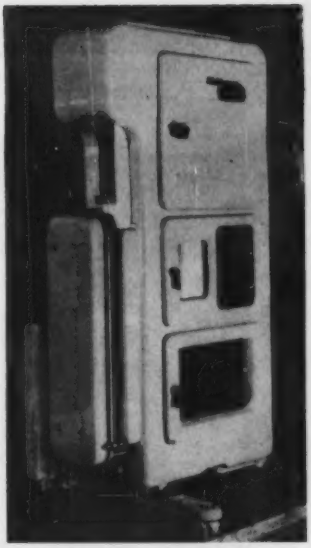
Wear and the resulting inaccuracies of weighing have been practically eliminated in a new line of laboratory balances developed by Torsion Balance Co., Clifton, N. J. The balances are not susceptible to the inaccuracies caused by dust and dirt as are knife-edge fulcrum balances.

A new oil dash pot that cuts weighing time to one-fifth that formerly required is featured. In addition, a wide range of graduated beams has been designed for ease of reading and speedy operation. And the slide weights on the graduated beams will not cock and introduce errors. The entire weighing mechanism is virtually one piece, with no loose parts to cause faulty operation.

Automatic Start Motion Saves Steps, Cuts Downtime

An automatic Start-Stop controller for textile machinery such as beamers, winders, slashers, looms, and knitting machinery has been invented by Everette J. Spencer of Rockford, N. C., and has been in successful operation for several months locally. The device incorporates remote-control features that allow machines to start up again immediately and automatically after the repairing by the machine tender of a yarn break or run-out.

When an end breaks or runs slack or a cone runs out of yarn, the machine stops as usual and a red lamp lights up. The operator repairs the end. Immediately, without the operator's returning to the control panel, the red light goes out and a green lamp lights up as the machine automatically starts running again.



Uster Announces Three New Yarn Testers

Three new yarn testers: an automatic strength tester, an evenness tester for filament, and an evenness tester with a linear and quadratic integrator, have been developed by Uster Corp., 2516 Wilkinson Blvd., Charlotte, N. C.

The strength tester, for single-end testing, is automatic in operation. Once started, it frees the operator for other duties and eliminates the human element of error from the testing operation.

The tester indicates individual values of the breaking strength, individual values of the elongation, sum of the breaking strength, sum of the elongation, frequency distribution of the breaking strength, and the number of tests carried out.

The new evenness tester, Type C, is designed for use with filament yarns. The tester determines the evenness of filament materials of zero or low twist at speeds up to 100 yd. per min. The tester can also be used on high-twist filament materials and on spun materials of between 10 and 10,000 den.

In addition to the linear integrator with which most of the Uster testers are equipped, there is now available **the quadratic integrator.** This unit automatically calculates, while the test is being run, the coefficient of variation. Most scientists and laboratory men prefer this figure but have not been able to use it practically because of the tedious mathematics involved.

Sizing Control Developed at Shirley Institute

A new warp-sizing regulator, said to control most, if not all, of the variables present in slashing, has been developed at British Cotton Industries Research Assn., Shirley Institute, Manchester, England. By use of the regulator, warps can be sized to any desired percentage by setting a pointer on a dial.

The regulator is said to detect and compensate for variations in the sizing operation continuously and automatically. It is said to compensate for variations in lots of starch, in viscosities of various batches, in amount of condensate in the size box, in size-take-up properties of the yarn, in pressure of squeeze rolls, in speed of running, etc.

The complete control unit, known as the Shirley automatic size box, is manufactured under exclusive license by Joseph Hibbert & Co. Ltd., Darwen, England.

Winding-Density Gauge Is Usable Anywhere

A precision testing instrument, called the "Durometer," which works by means of pin penetration and spring resistance up to 2 lb., is now available to the textile industry from Shore Instrument & Mfg. Co., Inc., 90-35 Van Wyck Expressway, Jamaica 35, N. Y. The new instrument has been developed expressly for measuring the density of yarn wound on individual cones, spools, bobbins, cops, and package-dyeing tubes. Any variation in density in a lot of bobbins can thus be determined.

The instrument consists of an easy-to-read dial graduated in units from 0 to 100. At the bottom, a blunt pin projects a standard distance. When pressed firmly against a test sample, the pin is forced back into the instrument in ratio to the density of the winding. The tighter the wind, the more the yarn resists the penetration of the pin, and, consequently, the higher the reading.

pH Indicator, Vacuum-Tube Voltmeter Are Line Operated

A new line-operated pH indicator and vacuum-tube voltmeter developed by Leeds & Northrup, 4934 Stenton Ave., Philadelphia 44, Pa., is unaffected by normal fluctuations in line voltage or by zero drift of the amplifier. A converter-type instrument, its circuit employs d.c. to a.c. conversion, a.c. amplification, and conversion back to d.c. for voltage feedback.

Used as a pH indicator, the instrument reads directly in pH. It makes glass-electrode measurements to within ±0.02 pH

on grounded or ungrounded solutions. A continuous 0 to 14 pH scale eliminates range changing.

The indicating instrument is a full-figure step-cam-controlled recorder. It includes provision for multiple ranges to give increased capacity with high sensitivity and accuracy.

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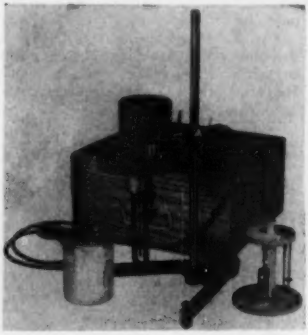


New-Model Viscometer Gives Determinations Directly

An eight-speed viscometer with a 200-to-1 ratio of speeds starting at 0.3 rpm. has been brought out by Brookfield Engineering Laboratories, Inc., Porter St., Stoughton, Mass. Known as Model LVT, the unit is one of several new models recently added to the company line.

Where wide ranges of viscosity are or may be encountered, the LVT viscometer is said to be ideal. When equipped with a UL Adapter that gives special amplifying effects, the new model can measure any viscosity between 0.5 cps. and 2,000,000 cps. with extreme accuracy.

•

Lab Dryer Maintains Precise Temperature and Humidity

A new laboratory dryer said to incorporate the latest features of design and precise control of temperatures and circulation has been developed by Denver Equipment Co., Denver, Colo.

The compact, inexpensive dryer operates on single-phase, 50- to 60-cycle, 110- or 220-v. a. c. It has an asbestos air-cell insulated oven that has a pair of standard, easily replaced heating elements. This insulation, combined with tight construction, keeps the heat in the dryer oven. Power consumption is low—less than 5¢ an hour.

Proper humidity and drying conditions are maintained with a forced-air circulating damper on the back of the dryer. There are three adjustments.

•

Accurate pH Meter Fits the Pocket

Pocket-sized pH meter and companion probe unit designed to permit instant, on-the-spot pH testing has been developed by Analytical Measurements, Inc., 585 Main St., Chatham, N. J. The 3-lb. instrument is furnished self-contained with batteries in a Bakelite case 3x5⅝x2¼ in. with an ever-ready case and with plastic tubes of buffer and potassium-chloride solutions. The meter is scaled from 2 to 12 pH for easy reading, and a simple adjustment gives reading from 0 to 14. Accuracy of 0.1 pH is claimed.

•

Microtome Cuts to Five-Millionths of an Inch

An ultra-high precision microtome, designed to cut sections of natural and synthetic fibrous materials to a thickness of five-millionths of an inch, has been developed at Battelle Memorial Institute, 505 King Avenue, Columbus, Ohio. American Instrument Co., Silver Spring, Md., will manufacture it.

The new instrument is expected to allow fullest use of the electron microscope for research on synthetic and natural fibers because the electron microscope requires specimens of the order of five-millionths of an inch. Uniform thicknesses are obtained in the cuttings.

Motion of the specimen across the knife is provided by a system of cantilevers. These consist of a pair of broad, flat, steel springs or blades with extremely high rigidity in the plane of the blade but adequate flexibility in the plane of motion. When deflected and released, the motion is highly reproducible.

Water-Bath Temperature Held to ± 0.005° C.

Precise control of water-bath temperatures within ± 0.005° C. over the range from —5 to 107° C. is claimed for the new "Isotemp" eight-sample bath developed by Fisher Scientific Co., 717 Forbes St. Pittsburgh 19, Pa.

A complete design change from the conventional water bath employs an electronic circuit to control a 400-w. and an 800-w. heater. The heating elements, stirrer, and controls are contained in a central column with all connections made through the bottom of the 15x15-in. Pyrex glass bath.

Stirring is done by a 11,500-rpm. motor and propellers so that the entire 10-gal. water (or light mineral oil) content is constantly in motion.

•

Self-Contained Illumination Is Integrated Into Magnifier

An electrically lighted magnifier for general industrial use, including textile-mill shops and laboratories, has been put on the market by Bausch & Lomb Optical Co., 635 St. Paul St., Rochester 5, N. Y.

The instrument is designed to speed detailed examination of all kinds of materials and products through self-contained direct illumination on the subject. It comes equipped with either of two types of illuminator handles: one battery-powered and the other arranged for connection with a 110-v. power source. Either handle fits a reflector-type shade into which the magnifier snaps.

•

Sampling Viscometer Spot-Checks Batch Processes

A viscometer that automatically withdraws a small sample of liquid from a closed system, brings that sample to any desired temperature, measures and records its viscosity at that temperature, and discharges the tested sample has been devel-

oped by Norcross Corp., 247 Newtonville Ave., Newton 58, Mass.

Complete viscosity determinations normally made by trained technicians are obtained by this new viscometer without any assistance from an operator. This equipment, therefore, has substantial laborsaving benefits. The test samples can be as small as 25 cc., and measurements can be made as frequently as every 3 min.

This new sampling viscometer can be used to follow viscosity changes in a batch process to indicate clearly the proper end point.

•

Roll-Surface Temperatures Measured Continuously

Measuring roll-surface temperatures from −40 to +450° F. are obtained with high precision with a temperature-measuring head developed by The Foxboro Co., Foxboro, Mass. The head is used in conjunction with a recording controller to furnish mills with continuous chart records of roll-surface temperatures on calenders, slashers, dryers, and other roll-type machines.

The temperature-sensitive element is a miniature resistance bulb that rides lightly on the surface of the roll. It is mounted on a block of "Marinite," which effectively isolates it from ambient temperatures.

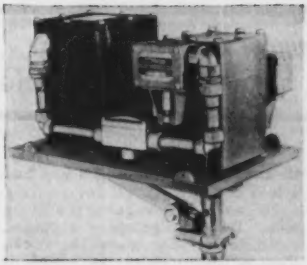
•

Water Content of Products Measured Automatically

The accurate determination of the water content of products has been developed by means of an instrument manufactured by Beckman Instruments, Inc., South Pasadena, Calif.

Basically, the instrument, called the "Aquameter," consists of an electrically controlled titrating unit into which the sample is introduced. A knob on the control unit is then set and the instrument completes the titration automatically without further attention from the operator. Normally, only one to two minutes are required for a complete determination.

The "Aquameter" operates on standard 115-v., 50- to 60-cycle a. c. circuits.



Viscometer Elements Measure Viscosity Under Pressure

New measuring elements for its viscometers, Models M5 and M6, have been developed by Norcross Corp., 247 Newtonville Ave., Newton 58, Mass. The new elements can be used in place of previous elements for solutions not at atmospheric pressures. Viscosities of solutions under all pressures from 100 psi. to full vacuum can be measured.

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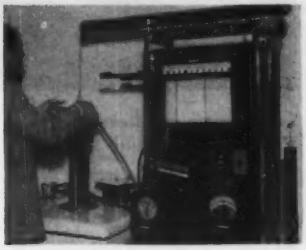

Evaluating Fabric "Warmth" Made Easier With New Tester

A warmth-testing apparatus has been developed by Southern Regional Research Laboratory, 2100 Robert E. Lee Blvd., New Orleans, La., that tests the insulating power of fabrics by measuring the energy required to maintain a constant temperature (approximately 100° F.) in tests made under the most severe "Arctic" conditions.

A metal "arm" clothed in a sleeve of the fabric to be tested is lowered into a freezing unit in which a fan has been installed to maintain a wind velocity of 12 to 13 mph. over the surface of the fabric. The combination of wind with adjustable cold temperatures provides a better means of evaluating fabrics for use in Arctic regions and other cold climates than is provided by still-air tests.

•

Instrument Measures Thermal Conductivity of Textiles

A measuring apparatus for heat conductivity that can accurately test the insulating quality of blankets, overcoats, and other fabrics has been made available to the textile industry by Central Scientific Co., 1702 Irving Park Rd., Chicago 13, Ill.

A layer of the material being tested is brought in contact with the measuring device, which is filled with boiling water and kept at a constant temperature by an immersion heater. The material is then placed on a receiving block of metal of known heat capacity. The temperature changes in the receiver, as affected by the heat being conducted through the material, are measured by means of a thermocouple; and the rate at which the receiver increases its temperature determines the insulating value of the fabric.

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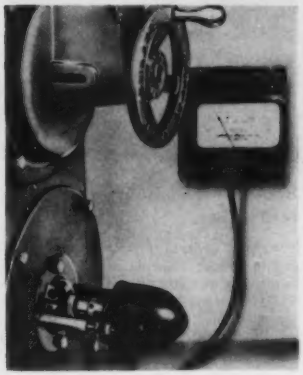

Electric Tachometer For Reeves Drives

A tachometer for use in inaccessible or remote locations has been developed by Reeves Pulley Co., Inc., Columbus, Ind. The price of the new unit compares with the price of the previously offered mechanical type.

The electric tachometer, which operates on the a. c. generator principle, can be mounted as far as 300 ft. from the variable-speed drive. The head can be used on drives with capacities from ¼ to 87 hp.

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Picker-Lap Uniformity Meter Developed

A picker-lap uniformity meter has been developed at the Institute of Textile Technology, Charlottesville, Va., for use in conjunction with the new uniformity analyzer being produced by Brush Development Co., Cleveland, Ohio.

The new tester measures inch-to-inch variation in picker laps. Picker laps tested on the electronic lap meter complement other tests on sliver, roving, and yarn.

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Time-Temperature Controller Useful in Dyeing, Finishing

An electronically operated circular-chart controller that can control industrial processes according to time-temperature schedules has been developed by Minneapolis-Honeywell Regulator Co., Brown

(*Continued on page 260*)

Cost-Cutting Equipment Offered for...
Air Conditioning and Heating

Doors Open or Close In 3½ Sec.

Bi-Fold doors that open or close in 3½ sec.—a feature valuable in air-conditioned plants—are available from Clark Door Co., 515 Hunterdon St., Newark 8, N. J. Doors are available in standard-size "package" units or in special sizes up to 10x13 ft. Any type of remote control can be adopted.

•

Non-Chemical Water Treatment Eliminates Scale

A new water-treatment process and equipment called "Hydrotron" has been developed by Heller Laboratories, Inc., 196 Morgan Street, Jersey City 2, N. J., to eliminate scale in heat-exchange equipment by means of changing water electrophysically. Minerals contained in treated water crystallize out in the form of a sludge or slurry. The sludge formed can be removed by blow-down.

The equipment consists of a bronze-pipe unit installed in the water-supply line and an electrical control unit, which is mounted in a convenient position nearby. Of simple, sturdy construction, the apparatus is said to require a minimum of care and attention in operation.

The process is suitable for the treatment of either fresh water or salt water.

•

Rotating Joint Handles High Steam Pressures

A new revolving joint capable of handling up to 250-lb. steam pressure and temperatures from 200 to 500° F. is now available from Rotherm Engineering Co., Inc., 4911 W. Irving Park Rd., Chicago 41, Ill. The new joint is short in overall dimensions, and is made in sizes from ¼ to 5 in. inclusive.

The seal inside the casing is a spring-seated Teflon wedge against a chrome-plated surface. The face of the rotating sleeve is chrome plated and ground for hardness.

The entire sealing assembly is a complete unit that can be removed without taking either member from the roll.

•

Suction Strainer Developed For Air-Conditioning Systems

Its new Type-B automatic suction strainer will cut air-washer maintenance in textile air-conditioning systems, the manufacturer, The Bahnson Co., 1101 S. Marshall St., Winston-Salem, N. C., reports.

The new rotary strainer is designed to (1) prevent clogging of spray nozzles, (2) remove lint from circulated water, (3) be self-cleaning—flush lint away, (4) allow washers to operate at full efficiency, (5) be fully automatic—no lint baskets or trays to empty, and (6) require little attention, be easy to install, be simple to maintain.

Single units are effective for washers handling up to 110,000 cfm. Multiple installations are possible for larger washers.

•

Too High Humidity Controlled Automatically

Mold, rust, mildew, dripping pipes, wet walls, dampness of product during manufacture, and warping can be prevented or cured through the use of a new dehumidifier brought out by Abbeon Supply Co., 179-15 Jamaica Ave., Jamaica, N. Y., the company reports.

The new Model WA-5 dehumidifier can be supplied in three ways: (1) for continuous or intermittent operation without automatic 110-v. a.c. control; (2) for separate "plug-in" control (all that is necessary for automatic operation is to plug the unit into the control, plug the control into the nearest electric outlet, and set the dial of the control at the percentage of humidity desired); and (3) for control built right into the front of the unit as a permanent part of the unit.

The dehumidifier has a height of 29½ in., is 13x13 in. around, and weighs 86 lb. It will take care of approximately 13,500 cu. ft. of air in an average enclosed area.

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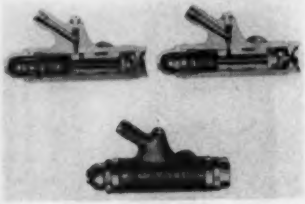


New Self-Cleaning Atomizer Improves Humidification

Superior spray quality combined with economy in air use distinguishes the new Amco No. 6 automatically self-cleaning atomizers that have been developed by American Moistening Co., 260 W. Exchange St., Providence, R. I.

Each time the atomizers are shut off, either manually or by the automatic humidity controller, motion of the water-jet carriage moves the atomizer's center pin through its self-cleaning cycle. Both air and water orifices are cleaned.

•

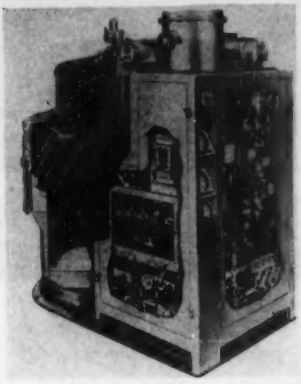
Air Filter Eliminates Lint-Screen Cleaning

A self-cleaning air filter for textile air-handling systems has been developed by The Bahnson Co., 1001 S. Marshall St., Winston-Salem, N. C. This Type-S air cleaner is said to eliminate routine cleaning of lint screens in all rooms except where lint and dirt are sticky.

The cleaner, available in several sizes, is mounted over recirculated-air openings on unit or central-station systems. It filters

(Continued on page 246)

Cost-Cutting Equipment Offered for...
Power Generation and Transmission



Steam Generators Take One-Third Normal Space

Steam generators developed to supply large quantities of high-pressure dry steam have been announced by Vapor Heating Corp., 4501 West 16th St., Chicago, Ill. The new units develop 200-lb. steam pressure from 50° F. water in 2 min.

Various sizes of the units are available that produce 500 to 5,000 lb. of 99% dry steam per hour at 82% efficiency at steam pressures from low pressures to 600 psi., using No. 2 fuel oil or natural gas.

The steam generators are used for processing steam and heating for all types of uses where low- and high-pressure steam from the same machine is desired. The units are automatic and modulate from low to high output.

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Motor-Control Center Has Improved Features

A new motor-control center for use wherever two or more a.c. motors (up to 200-hp., 600-v.) are controlled from a central location has been announced by Control Dept., General Electric Co., Schenectady 5, N. Y.

The new center is pre-engineered, factory-wired, and assembled, and employs many standard components and accessories. According to GE engineers, it provides a simplified method of installing and servicing, in a central location, a.c. combination motor starters in NEMA-sizes 1 through 5, as well as lighting panels and associated equipment for a group of motors.

The center is designed to withstand short-circuit stresses up to 25,000 amp., substantiated by certified laboratory tests. Its sections, each measuring 20 in. deep, 20 in. wide, and 90 in. high, join together to form a strong, free-standing, completely dead-front, NEMA 1, enclosed control assembly.

One of the main features of the new design is a 4-in. vertical trough (with cable supports) that runs the full length of each section and provides ample space for wiring. No "threading through" or "fishing" is necessary because metal barriers that separate the starter units are easily removed to leave a continuous wiring trough.

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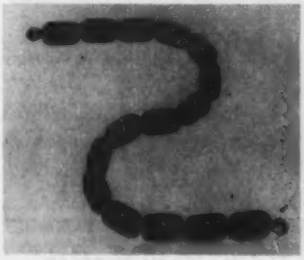

Linked V-Belting Is Leather-Faced

Small-pulley, short-center drives are said to be ideal applications for a linked, fiber V-belting developed by Graton & Knight Co., 348 Franklin St., Worcester 4, Mass. Each link is made of two fiber sections faced with oak-tanned leather. Steel connectors join the sections. The leather segments are V-faced to provide a double bevel that conforms to standard V-belt sheaves.

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New All-Steel Bearings Carry Extra-Heavy Loads

A new line of all-steel pillow blocks that provides high load-carrying capacity in a compact and rugged package has just been developed by Dodge Mfg. Corp., Mishawaka, Ind., in cooperation with Timken Roller Bearing Co. High radial and thrust capacities and the stamina to take heavy loads are provided within minimum dimensions and with far less than usual weight.

Bearings are self-aligning, with spherical outer race. Double piston-ring seals keep the lubricant in and dirt and dust out of the bearing, which is sealed both on and off the shaft. Shaft sizes are to run from 2⅛ to 10 in.

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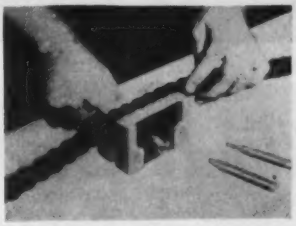

Special Vise Simplifies Stocking of Roller Chain

A new chain vise that is said to make it possible to take apart single- or multiple-strand roller chain easily has been announced by Chain Belt Co., 369 Plainfield St., Springfield, Mass. The Baldwin-Rex chain vise is made of forged steel and has hardened jaws that are specially shaped for adapting to various chain sizes.

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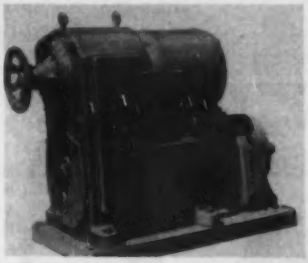


25-Hp. Variable-Speed Drive Developed

A new size in its Vari-Speed Moto-Drive has been developed by Reeves Pulley Co., Seventh St., Columbus, Ind. Designated as Model No. 8000, the new unit has a capacity of 25 hp. and is available in all speed ranges from 2:1 to 6:1.

The new No. 8000 model is offered in horizontal and vertical designs. Handwheel control is standard, but electrical or completely automatic hydraulic controls

(Continued on page 238)

What Was New

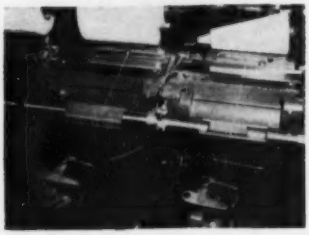
AT THE GREENVILLE SHOW

► Cost-cutting equipment and supplies geared to the progress now being made by the textile industry were on display at the 17th Southern Textile Exposition, Greenville, S. C., Oct. 6-11.

► Bigger and better than ever, the Greenville Show attracted record-breaking crowds of mill men.

► In this report, compiled at the Show, the editors of TEXTILE WORLD present WHAT WAS NEW at the Show — machinery, equipment, and supplies that can help keep your mill in a favorable competitive position.

Yarn Preparation



CONDITIONING ON THE WINDER is possible with this new device. Yarn passes over a screen section fed by a sponge in a tube that runs the length of the frame.

New System Conditions Yarn Right on the Winder

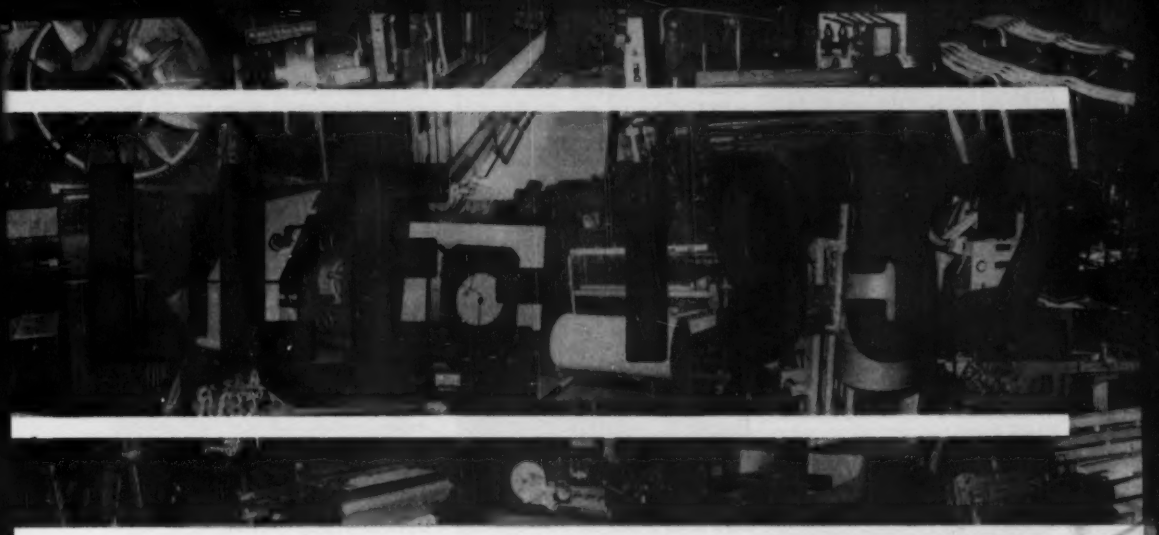
A new Surco yarn-conditioning system for Universal and Foster winding equipment was shown by Kearny Mfg. Co., Inc., 681 Schuyler Ave., Kearny, N. J. The new system, designed to eliminate the need for trough conditioning or for a conditioning room, is said to assure uniform moisture content throughout the package.

The device consists of a stainless-steel tube fitted with sections of stainless-steel screening over which yarn is guided to pick up a desirable amount of liquid. The moisture pickup is controlled by adjusting the liquid level in the tube and by moving the sponge in the tube that conveys the liquid to the under surface of the screen section. The liquid level in the tube is controlled by the position of the small tank that feeds the tube.

The angle at which the yarn travels over the screen section can also be changed to give a further adjustment. From 1 to 8% of moisture can be added by the system.

The entire conditioning system can be lifted up so that the winder gears may be cleaned.

Another advantage claimed for the system in addition to the more even application of moisture is that production flow is not interrupted because of conditioning by any storage method.

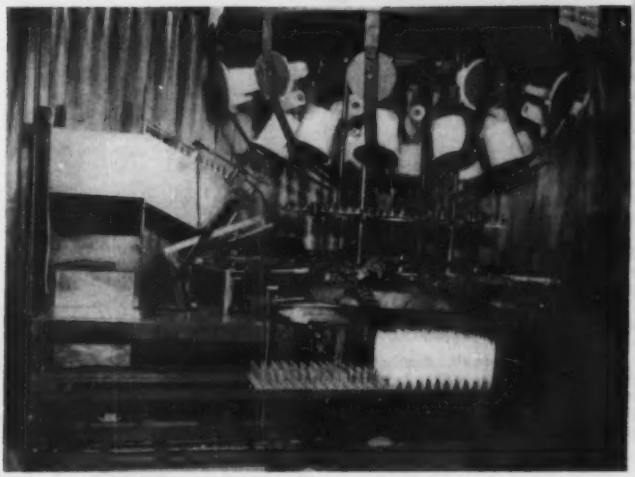


Automatic Radial Quiller Designed for Smaller Mills

An automatic radial quiller for winding cotton, spun rayon, filament rayon, wool, and worsted yarns was presented by Abbott Machine Co., Inc., Wilton, N. H. The new quiller is designed for smaller mills and for mills with widely diversified production.

The radial quiller, in addition to its small size (12 winding positions and the machine occupies only a 5½x7½-ft. floorspace) has several improvements on it. Tensioning is accomplished with tensions (consisting of six posts each) arranged in a curve to eliminate snubbing and to enable threading up without the yarn going through any holes.

The machine can be equipped with an automatic pinboard attachment or can doff into baskets. Spindle speeds are 3,450 rpm. for spun yarns and 5,600 rpm. for filaments. A frequency converter can give interim speeds, but it would probably take 10 or 12 radial quillers to justify the expense of a frequency converter or a cycle changer.



ABOUT $2,200 BUYS this automatic radial quiller on which production up to 2,000 bobbins per hour is said to be possible.

THIS FLAT GRINDING MACHINE costs $1,320 complete and grinds four flats at a time out of the card.

Three Grinding Devices Aimed at Better Carding

Three new Dronsfield grinding devices were displayed by John Hetherington & Sons, Inc., Gastonia, N. C.—a flat grinding machine, a traverse-wheel grinder, and a card-point tipper.

The new flat grinding machine with enclosed motor drive grinds four flats at once and sells for $1,320 complete. Flats are ground out of the card to obtain absolute precision in setting. A stop motion automatically stops the machine when all irregularities have been ground out.

A traverse-wheel grinder with a new double speed for flats has a totally enclosed differential motion. Traverse speed for cylinders and doffers is 150 in. per min., for flats 300 in. per min.

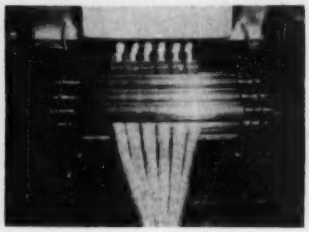
A card-point tipper is fitted with a side-grinding boss that has thin bevel-edge emery wheels. The machine is used to touch up dull or worn carding points on cylinders and doffers. It takes about 35 min. to "tip" a cylinder and about 20 min. for a doffer.

Lighter Tape Available In Single-Ply Construction

A tape designed to replace heavy tapes in worsted spinning and twisting and in large-package cotton twisting was shown by Hope Webbing Co., Providence 1, R. I. The new tape is a single-ply weave made in widths from ⅜ in. to 2 in. and features a hinged center.

The company's general line of woven labels, including wash-type labels for towels and underwear, was shown for the first

time. Of particular interest were the automatically cut, folded, and boxed labels that eliminate the need for the purchaser to bother with cutting tapes from a roll.



BACK TOP ROLL IS SPLIT on this new drawing frame, and each 1-in. segment acts as an evener motion.

Split Back Top Roll Is Drawing-Frame Evener Motion

A drawing frame with the back top roll in 1-in. segments was shown by Ideal Industries, Inc., Bessemer City, N. C. The new idea is said to act as an evener motion and produce better drawing sliver.

Stock enters the back rolls and raises or lowers the movable top segment (there's just one end fed under each segment). If the end is too heavy, the top segment will be raised and the effective diameter of the bottom roll (both steel rolls are fluted) will be reduced. With the effective diameter reduced, less stock is fed and the draft between the third and back line is increased. The heavy end is therefore reduced.

The same procedure works in reverse for a light end: effective diameter is increased, draft is decreased.

The company claims that drawing sliver produced on the new system has better inch-by-inch variation. A heavy or light place only 1 in. long is enough to cause a compensating effect in the segmented rolls.

DOUBLE-WHEEL TRAVERSE GRINDER in the center of this display attracted a lot of attention. The new cradle is at the top, and the ball-bearing rolls are displayed at the bottom.

Three Card-Grinding Advances

Three new developments in card grinding were exhibited by B. S. Roy & Son Co., Worcester, Mass.

1. A ball-bearing roll in each end of a standard traverse-grinding wheel is said to increase roll life and give smoother operation.

2. A new grinding cradle of the Saco-Lowell type can be adjusted to any card width from 44 to 45 in.

3. A double-wheel traverse grinder is said to increase grinding efficiency by halving grinding time.

TWO SINGLE UNITS are combined in this tandem application, but more can be added if your waste requires additional processing. Double action of each unit often means that fewer cylinders are needed than you'd expect.

Two New Features Shown on Waste Machines

A hopper feeder and a tandem application featured the exhibit of Kirkman and Dixon Machinery Co., Greenwood, S. C.

The hopper feeder is recommended for use with the single-cylinder waste machine for soft waste. Mechanical feeding is said to distribute the waste more uniformly on the feed apron and to keep the machine in full production without a full-time operator. The mechanical feeder can also be used with a tandem-unit waste machine if hard waste is first cut into 2- or 3-in. lengths.

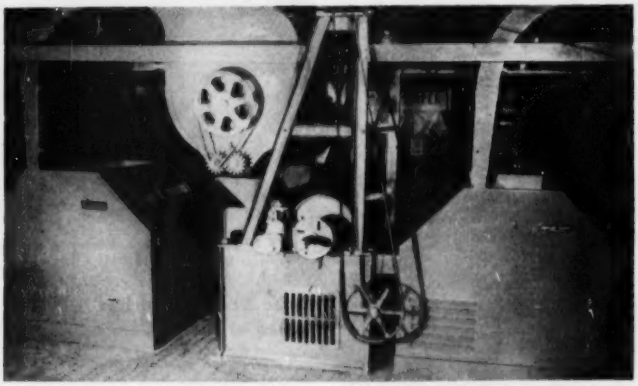
A new tandem application of the single-cylinder waste machine combines two or more single units to process unsized hard waste. The double action on each of the unit's cylinders is said to be more efficient than conventional machines with four or more cylinders. Only one feed apron and one delivery apron are used in the tandem application.

▶ **A new line** of Atlantic textile-mill-crayons was shown by Binney & Smith Co., 41 E. 42nd St., New York 17, N. Y. The crayons, available in a range of 36 colors, will bleach out in either chlorine or peroxide treatments.

Uptwister Stop Motion Involves No Extra Threading

The threading motion on the new stop motion for their Unirail uptwister is the same with or without the stop motion, according to the demonstration at the booth of Universal Winding Co., Providence 1, R. I. Yarn passes over the stop-motion bail; and when an end breaks, the bail rises and causes the take-up package to be lifted off the take-up roll.

Field tests of the stop motion are said to show that added tension is only one



TWO SUPER-JETS IN A ROW are said to be enough to clean most cotton after blending feeders and mixing feeder. The entire cleaning system totals eight blows per in. or less.

Double-Super-Jets Said To Give Cleaner Cotton

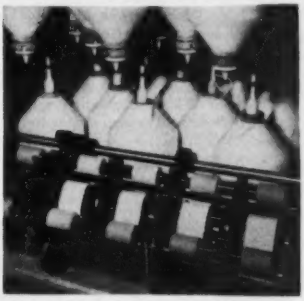
A tandem arrangement of Super-Jet cleaners was shown by Aldrich Machine Works, Greenwood, S. C. The double system is said to increase cleaning power and stop injurious beating of cotton.

The new system is said to cost no more than a single Super-Jet with three beaters in the opening line and fits into the same space. The tandem arrangement reduces amount of beating and doubles air cleaning.

In operation, cotton from the mixing feeder following the blending feeders is delivered to a single beater opener that feeds the first Super-Jet. This first machine delivers to a high-vacuum dusting condenser that leads to a second feed-roll-type opener. This second opener feeds the second Super-Jet, which completes the cleaning on most cotton.

The tandem system has a normal production rating of 800 lb. per hr.

gram. And an automatic interlock prevents take-up packages from being lifted in the event of a power failure or for routine machine stoppage.



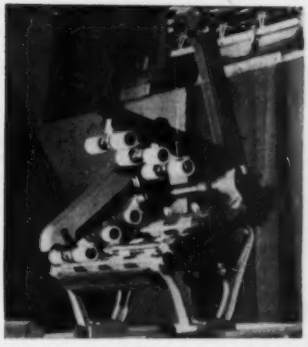
NEW CREELS AND DRAFTING SYSTEMS feature these spinning-frame changeovers said to give the economies of high draft without new-frame cost.

Super-Draft Changeovers Have New-Type Saddles and Cap Bars

Better yarn evenness and higher break factors are claimed for the spinning-frame changeovers shown by Roberts Co., Sanford, N. C. The double-belt system is adaptable to any spinning frame.

The changeover features No-Oil wooden cap bars and saddle that eliminate oiling of the top line. The saddles cost $0.55 and the cap bars $0.27 and are made of oil-impregnated maple.

Another feature of the changeover is the creel system. Revamped creels make possible, for example, the use of 12x6 packages on a 2¾-in.-gauge frame and 10x5 double packages on a 3¼-in.-gauge frame.



TOP-ROLL ASSEMBLY from Italy detaches completely from bottom rolls to make cleaning of the frame easy.

"Pendelarm" Top Rolls Eliminate Underneath Levers

A new leverage pressure-type top draft-roll assembly, known as Pendelarm, for long-draft spinning frames of 3-in. gauge and over was shown for the first time in the U. S. by Stellite American Corp., 60 E. 42nd St., New York 17, N. Y. Pressure on the top rolls is provided by means of enclosed adjustable springs. The assembly pushes back away from the bottom rolls to give complete freedom when cleaning is being done. All levers in and under the bottom rolls are thus eliminated.

The maximum back-to-front roll distance is 5 in., which, when the center rolls are used as slip-draft rolls, allows for handling 3¼ to 4-in. fibers.

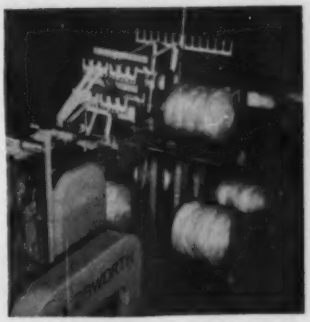
Pressure on the self-aligning rolls of each assembly can be adjusted with a nut independently as needed. Top rolls snap into the assembly at the arbor in the middle.

Gill-Reducer and Combing Developments Are Highlighted

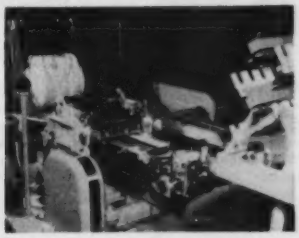
Three different Holdsworth gill reducers and one Société Alsacienne SAG French comb were running at the booth of Atkinson, Haserick & Co., 211 Congress St., Boston, Mass. All had improvements on them.

COILER DELIVERY INTO A CAN from a Societe Alsacienne rectilinear comb can be used for processing synthetic fibers; it holds the fibers together well and simplifies subsequent processing on baller or drawing gills.

THREE-CAN DELIVERY on this Holdsworth reducer still gives 100-grain sliver per can and gives 50% more production, in conjunction with an 18- instead of a 12-can creel. The three-head unit is not designed for first-process use, however.



BALLER CREEL can be set up behind any Holdsworth gill reducer when desired. Electric stop motions are provided for in the same manner as with the can creel.



SINGLE-HEAD DOUBLE-DELIVERY BALLER has a capacity of two 2½-oz.-per 5-yd. top slivers, from 18 to 25 lb. per ball. The creel has 24 cans. This baller is designed especially for use after combing.

New Bobbin for Synthetics Requires No Balancing

The NB bobbin, said to be in dynamic balance without expensive balancing, was shown by Lestershire Spool & Bobbin Mfg. Co., 140 Baldwin St., Johnson City, N. Y. Beveled aluminum bushings used in the bobbins are threaded to the central metal tube and hold the heads securely without any screws.

Lestershire's claim that power consumption is less with their balanced bobbins was graphically demonstrated at the show. Two bobbins were used—one purposely out of balance. A power-consumption test showed that if all the bobbins on a 100-spindle twister were out of balance (a reading of 5.0 on the Universal bobbin-balance indicator), the extra power cost would be about $75 a year (based on $0.01 per kwh., 100 hr. per wk., 50 wk. per yr.).

Other advantages claimed for the new bobbin include less spindles and bolster wear, higher speeds, lower bobbin investment, and minimum vibration.

New Lags and Pins

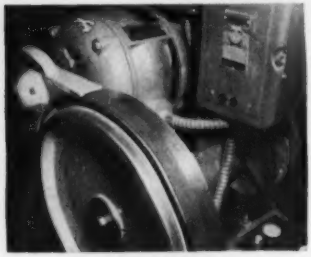
Two new lags and a new line of pins were presented by William Crabb & Co., Black Mountain, N. C.

A new fiber-face waste-machine lag is

said to give greater strength and durability with reduced fire hazard because of the higher kindling temperature of the facing material. The new material is also said to resist cutting and grooving.

A steel-face waste-machine lag was shown for those who want the ultimate in life and durability in a lag face.

Stainless-steel pins to handle synthetic fibers in wet processing are now available in the company's entire line.



NO MORE AISLE SPACE is required for this new card drive than that required for an existing belt drive. Design features are aimed at having a good drive at a low price (about $200 without controls).

New Motor Drive for Cards Retains Tight and Loose Pulleys

A new card drive that enables a mill to retain much of the same operating procedure but still have the advantages of individual-motor drive was shown by Southern States Equipment Corp., Hampton, Ga.

The drive retains the conventional tight and loose pulley and has the same diameter of grooves for stripping and grinding —no change in procedure is necessary.

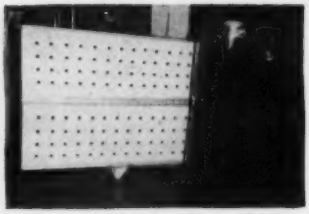
A Gilmer timing belt is used to give a positive drive and conserve space. A standard 1.5-hp., 1,200-rpm. motor can be used because the motor attains top speed before any load is applied. (The motor has a short frame and a recessed end bell.)

Cost of the drive is about $200 without controls. This price includes the motor.

Saddle Bearing Needs No Lubricating

A new saddle-bearing material that needs no lubricating and does not smudge was shown by Ragan Ring Co., Box 174, Station A, Atlanta, Ga. The new material, which is a good conductor of electricity, is said to ground the rolls and reduce static problems. A sample bearing is said to have shown no wear after 8 mo. of use.

▶ **An automatic recording motor-driven cotton-lap scale** that moves on a track in front of the pickers was a feature of the booth of Toledo Scale Co., Telegraph Rd., Toledo, Ohio. Similar to the overhead scale used in the lap-handling system shown at the show by American Monorail Co., the Model 85 scale eliminates lap carrying by the picker tender.



A 15x42-IN. COILER CAN of seamless construction was shown by Fibre Specialty Mfg. Co., Kennett Square, Pa. Conditioning trucks also shown by the company are made of sheet Fiberglas and stainless steel and are said to have the advantages of all-stainless-steel without heavy weight or high price.

New Tension Compensator Aims at Heavy-Duty Range

A tension compensator designed to maintain a predetermined tension at constant speeds up to 250 yd. per min. was presented for the first time by Walter Kidde & Co., Inc., 675 Main St., Belleville 9, N. J. The new unit is designed for the ¾- to 7-lb. range of tensions.

Changes in yarn coefficient of friction or in back drag from the supply package equalling almost the output tension are said not to influence the compensator. Cottons and plied and twisted synthetics up to 10,000 den. are said to have been run through the compensator with no sign of degradation.

Yarn is tensioned by being engaged by pretensioning disks in a serrated wheel upon which a brake operates. A control arm relieves or applies force to the brake until it produces a tension equal to the spring force exerted on the control arm. The control arm governs tension as it varies to keep outgoing tension constant.

If the friction inherent in all mechanical motion and the small amount of friction imposed by the pretensioning disks are neglected, the device can be said to be 100% compensating.

▶ **A gold-finished flyer** especially designed for synthetic and combed stock was shown by Ideal Industries, Inc., Bessemer City, N. C. The extra-smooth, plastic-baked finish is said to prevent slugging, hanging, or linting and can be applied for about 10% of the cost of a new flyer.

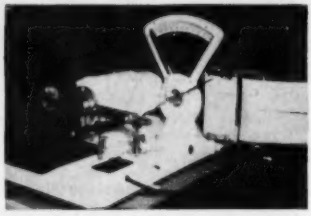
Warper Beam Heads Are Cross-Laminated

A new line of maple warper beam heads of four-ply construction for high-tenacity rayon was shown by U S Bobbin & Shuttle Co., Greenville, S. C. The heads are cross-laminated at a 90° angle, scientifically glued with the finest waterproof adhesive, and bonded under heavy pressure. Stresses and strains in the wood are equalized to reduce any tendency toward warping.

Rims are protected by a tight-fitting steel wire or can be furnished with a rubber tire that protects both beam and floor.

Top Roll Is Knurled For Long-Draft Frames

An addition to the Cleandraft line of nylon-bearing top rolls for the back and middle lines was shown by Product Sales, Inc., 21 Vernon St., Whitman, Mass. The new roll has knurled steel bosses on a nylon plastic arbor as usual, but between the bosses is a nylon plastic gear that replaces the steel gear and arbor formerly required for Whitin long-draft roving and spinning frames. The new apron top roll is said to eliminate lubricating and to result in cleaner yarn and less cleaning cost.



THIS FRICTION TESTER was operated at the show to demonstrate the low friction and low starting torque of the new top-roll and saddle unit shown by Dixon.

Top-Roll and Saddle Unit Uses One-Third Less Power

A package unit of top roll and saddle equipped with Rulon bearing material on the end gudgeons and on the saddle was displayed by Dixon Lubricating Saddle Co., 182 High St., Bristol, R. I. Rulon needs no oiling but contains no oil, graphite, or impregnated lubricant.

Another feature of the package unit, which sells for about $0.40 a spindle, is the smaller arbor that is said to combine with Rulon's advantages to reduce power requirements by about 33%. And the smaller starting torque is said to mean fewer ends down.

▶ **A doffer's truck** with a bobbin box that has an elevator-type bottom, which saves bending over to reach the bottom half of the box, was displayed by W. T. Lane & Bros., Inc., Poughkeepsie, N. Y. A wire cable attached to the four corners of the movable metal bottom raises the bobbin level when the doffer moves a raising wheel located near his knee. A canvas basket for doffed bobbins makes up the other half of the doffer's truck.

Complete Static Line Shown for First Time

Their complete line of static-eliminating equipment was shown for the first time by The Simco Co., 920 W. Master St., Philadelphia 22, Pa. The line includes bars in all sizes for all textile applications.

Of particular interest was the Simco

shockless static bar. Voltage is maintained at the same high level as in standard bars, but current is reduced to the point where touching produces no sensation. The shockless bar is said to be particularly useful where operators have to work around the bar. The new bar can be used on garnetts and similar machines where the fire hazard made previous use impossible.

CLEARER COVERS are said to eliminate "eyebrows." New picker is made of a plastic material selected for long wear but enough "give" for smooth loom operation.

Clearers Get Covers; New Picker Is Plastic

Covers for both flat and oscillating clearers were shown by Armstrong Cork Co., Lancaster, Pa. The new covers, made of synthetic rubber, are to be used in place of felt on drawing, roving, and spinning frames. Clearer picking and "eyebrowing" are said to be completely eliminated because roll covers are kept clean without an accumulation of waste.

Another new item in the Armstrong line was a molded-plastic picker that is said to give longer life. The picker, although molded, is not thermoplastic after molding and is said to have toughness but enough resiliency to permit good boxing and to prevent breaking of shuttles. The picker is available only in loop sizes at present.

Plastic Bobbin Finishes Stand Up in Conditioning

Two new plastic finishes for automatic-loom and warp-spinning bobbins were featured by Bowen-Hunter Bobbin Co., Inc., East Corinth, Vt. The finishes, said to stand all types of conditioning up to 210° F., are claimed to satisfactorily replace baked-enamel finishes.

PLASTIC SLIVER GUIDES, plus this creel, are said to minimize splitting and curling and give cleaner drawing frames.

Improved Sliver Claimed From Use of New Sliver Guides

Plastic sliver guides said to virtually eliminate stretching of the sliver from creel can to drawing frame were shown by Odom Machine Mfg. Corp., Roswell, Ga.

The complete creel consists of a stand that holds plastic guides for any specified number of ends. The plastic guides themselves are made of Royalite by Gladwin Plastics, Inc., Atlanta, Ga. The guide is a one-piece molding that is very smooth.

The main claim made for the creel and guides is that sliver comes out of the can the way it went in—from directly above—and is not pulled out along the rim. Sliver breakage is said to be less, and creeling is said to be easier.

► **Ball-bearing top rolls** of simplified construction, for use on roving and spinning frames, were featured by Faultless Caster Corp., 1521 N. Garvin St., Evansville, Ind. The new rolls have four interchangeable ball-bearing components per unit. Advantages are the interchangeability of all the component parts, heavy load rating of the ball-bearing units, the elimination of oiling, perfect rotating synchronization with the bottom rolls, and elimination of wear on cap bars and saddles. Unit-length sizes range from 4¾ to 7¾ in. while individual-roll working areas are available from 1¼ to 2¾ in. wide.

► **Elastic bands** for roving-can identification were shown by Lambeth Rope Corp., New Bedford, Mass. The bands, made of rubber-core yarns, are available in six colors. Since they can be unhooked, they can be installed or removed while machinery is running. Cost is 10¢ apiece.

Continuous Flat Grinder Has Automatic Flat-Chain Lubricator

There were two main points of interest at the booth of Charlotte Mfg. Co., Charlotte, N. C.—a continuous flat grinder and a flat-chain lubricator.

The continuous grinder is used in the reclothing of old flats and is said to grind flats to a variation of not more than 0.002 in. The flats are ground on chains, as in the mill, and high flats are ground first and very lightly to prevent damage to the wire.

Carders were also interested in the automatic flat-chain lubricator with which the continuous grinder was equipped. The lubricator was originally designed and is still available for mill use on cards to prevent stiff, rusty, and corroded chains. The lubricator, recommended for use while grinding, is said to increase flat-chain life by as much as five times, reduce replacements of flat worm gears, and make possible more accurate flat settings because bucked flats are eliminated.

► **A lightweight, economical Plasti-weld bobbin** for Saco-Lowell's Gwaltney spinning frame was exhibited by American Paper Tube Co., Greenville, S. C. The new bobbin is said to retain the construction advantages that weld plastics, metals, and laminated paper into a homogeneous unit and produce precision bobbins.

A virtually unbreakable tip for automatic-loom bobbins was the new feature of the company's bobbin line. The bobbins are available with or without ferrules for the electric feeder.

► **A lapless and endless spinner-coner belt** with a high-tenacity cord center was shown by Ton-Tex, 16 W. 61st St., New York 23, N. Y. The belt is said to be over 50% stronger than conventional belts and to be stretchless but still flexible. The new belt is mainly for synthetic twisters.

► **A raschel knitting machine** exhibited by Robert Reiner, Inc., 556 Gregory Ave., Weehawken, N. J., was of interest to many of those who attended the show. The same type of machine was shown at the Knitting and Allied Crafts Exposition in New York last spring, but this unit was knitting cotton raschel fabric, of the foundation garment or dishcloth type, 100 in. wide.

Weaving and Warp Preparation

Three New Slashers Will Size All Types of Warps

A new high-production slasher designed for cotton, wool, or synthetic fibers is said to greatly increase production with little increase in space requirements. The Air-Dri slasher, manufactured by West Point Foundry & Machine Co., West Point, Ga., uses a wet-splitting device that divides the yarn in layers as it enters the dryer and is said to result in yarn that is 40% dry by the time it reaches the first guide roll. Fan-blown heat finishes the drying process.

The Callaway narrow-fabric slasher was also shown by this company. This new machine is an all-electric slasher and is used to slash narrow fabrics of the tape type, samples, and short-run styles. The slasher will vary in speed from zero to 40 yd. per min.

The third new slasher shown by this exhibitor was the Multi-Can Slasher. It is built with 5, 7, 9, or 11 cylinders of 30-in. dia. Temperature control, pneumatically operated squeeze rolls, and other

new developments enable this slasher to handle natural or synthetic fibers.

Heavy Construction Means Higher Speeds on Two New Looms

A new loom, the HC 50, a 44-in. loom that was weaving spun-rayon shirting of 50% viscose and 50% acetate, was shown by Hunt Loom & Machine Works, Inc., 200 Academy St., Greenville, S. C. The cloth, 38 in. wide and of 68x52 construction, was woven in a 51-in. reed space at 187 ppm. A 26-in. warp beam is used on this loom.

The loom has a single-end filling fork, a midget feeler, Stafford thread cutter, and a No. 8 Hunt motor drive.

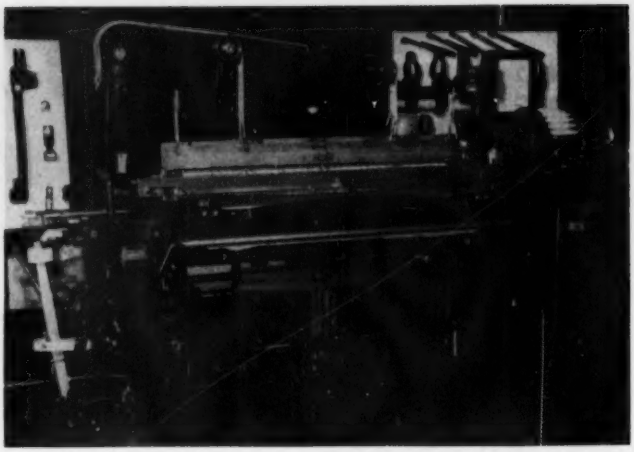
The loom features heavy construction in the sides and throughout the shafting.

The new Hunt HL 16, 50 in. wide, was weaving the same construction of cloth as the HC 50 in 49-in. width. This loom was running at 164 ppm.

A four-bank electric-stop motion, 22-in. warp beam, double side-filling fork, Stafford thread cutter, and the Diehl power drive were shown on this loom.

Both looms are equipped with the Hunt spreader.

Several loom parts may be selected; for example, a cam harness motion or a dobby may be used on either loom.



HEAVY-FRAME CONSTRUCTION and heavy shafting make the two new Hunt cotton looms ideal for weaving spun-rayon fabrics at high speeds.

FILLING BANDS ARE REDUCED on this 2x1 filling-mixing loom made by Draper. The Knowles head can support the harnesses on heavy weaves.

Filling-Mixing Loom Eliminates Unevenness in Cloth

A spun-rayon cloth of 50% viscose and 50% acetate was woven on a 72-in. XD loom equipped with a two-cell shuttle box and a box motion. Draper Corp., Hopedale, Mass., showed the loom. The loom is designed to weave blends of wool and blends of all synthetic fibers. The construction of the woven cloth on the loom was 90x42.

The harness motion was a C&K Knowles head of 20-harness capacity.

The loom features a No. 83 semi-low roll silk-type take-up, No. 3 Draper Diehl drive, No. 5 Bartlett automatic let-off, double electric-midget feeler, and center-filling fork.

A 32-in. warp beam is used. The shuttle is 18¼ in. long and 2¼ in. wide, has a front-wall height of 1½ in. and a back-wall height of 1⅝ in. An 8¾-in. bobbin is run.

The loom was running at 143 ppm.

Chain-Driven Dobby Motion Receives Indication From a Card

A paper pattern is used to indicate harness movements on a new dobby motion that was shown by H. J. Theiler Corp., 22 Ashmont Ave., Whitinsville, Mass.

The Staubli dobby is driven from the crankshaft by a chain. The warp shed stays open through 120° of the crankshaft movement and opens and closes rapidly. The manufacturer claims that the quick movement of the harnesses breaks the warp ends apart cleanly and that this results in fewer broken warp ends.

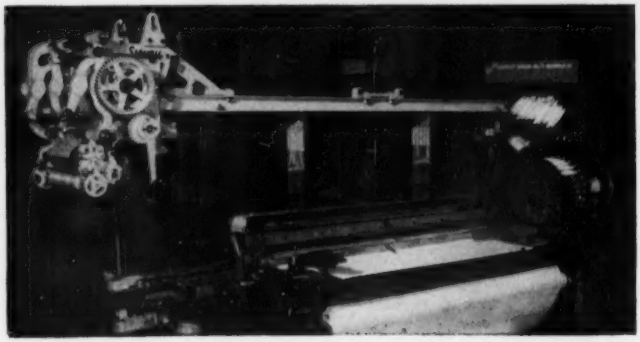
The dobby can be disengaged from the loom to find a loose pick in the cloth when it is necessary to remove one or more picks of filling because of cloth defects.

The dobby was shown on an XD Draper loom that was weaving nylon cloth. It can be fitted to any make of loom.

A card-cutting machine is used to punch paper patterns for the dobby. One yard of paper will indicate 300 picks of filling. Patterns of 12- to 15-yd. card lengths may be used, which means up to 4,500 picks of filling on a single style of cloth.

Several New Harness and Reed Designs Show Improvements

Aluminum harness frames for conventional-type harnesses and for Drawtex harness equipment were highlighted by Steel Heddle Mfg. Co., 2100 Allegheny Ave.,

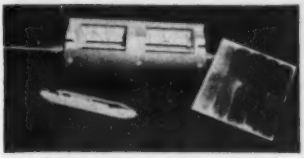


THE STAUBLI DOBBY receives its indication from a punched card. Several hundred looms can be supplied with pattern cards from a separate pattern-punching machine.

Philadelphia 32, Pa. The harnesses are said to be lighter than wood, nonsplitting, longer lasting, and in need of little attention at the loom. Few repairs have to be made to this type frame when a new warp is drawn on them.

Harnesses for Warner & Swasey weaving machines were also shown. Old-type harness frames tended to fold inward from the pressure of the harness-shedding motion. The new harness frames are said to withstand this external pressure.

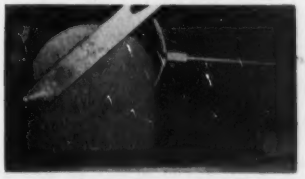
Another development by this company is a fan reed with soldered blocks to aid in striking single-end leases on tricot warpers.



NEW BEAM, shown in cutaway section, is designed for high-speed work. Also shown for the first time by this company was the Taylor fur line and Watson-Williams's new shuttle, with a cast-iron eye, for Draper looms.

Workhorse Beam Is Feature of Weaving Line

A new beam, called Workhorse and said to be dimensionally stable and suitable for high-speed work, was shown by Watson & Desmond, Charlotte, N. C. The beam barrel and heads are covered with Masonite and are said to be both impervious to moisture and resistant to damage in operation and transportation. The beam is available in a full range of sizes from 20- to 36-in. heads.

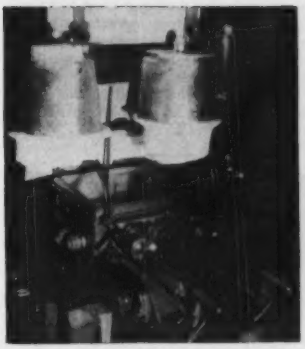


WARPS WILL LET OFF uniformly if this new friction-type let-off is used, says Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa.

New Regulator Improves Homogenized-Size Control

An air-operated steam regulator for the heat exchanger used with the Hydropulse homogenizer was announced by Southern Sizing Co., East Point, Ga. Control to within ±1° F. is now said to be possible. Self-actuating regulators ordinarily give control limits of ±4° F.

The new regulator is said to be of particular value to mills that are eliminating size storage and are using this new system to feed size directly to high-speed slashers.



"IT CENTERS ITSELF." That's what Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa., says of this new Rayonex cake holder that comes in two sizes.

THE THREAD CUTTER IS RAISED by a cam, and the filling end to be cut is raised above the box front and cut quickly.

New Thread Cutter for Single-Shuttle Looms

A thread cutter for single-shuttle looms that is said to reduce filling jerk-backs was shown by Hunt Loom & Machine Works, Inc., 200 Academy St., Greenville, S. C.

The Hunt thread cutter No. 25 is mounted on a three-piece bracket to replace the two-piece bracket formerly used. If one of the suspension brackets breaks, the other bracket will hold the thread-cutter assembly in its correct position while the broken piece is being replaced. This feature eliminates the resetting of blade height necessary on the two-type bracket.

The opening cam on the No. 25 thread cutter is set closer to the loom lay so that the knives will have less time to rebound when a transfer is indicated. The cam is also designed for easier and faster opening.

On the back stroke, the thread cutter raises to a 30° angle to hold the waste end from the exhausted bobbin of filling above the box front and in a straight line from the thread-cutter holding blade to the temple knife. The waste end is in the correct position to be cut by the temple knife. Since the waste end is held above the lay, air current from the movement of the lay will not tend to loosen the end in the holding blades.

The holding blades are cut with a space between the sides of each blade so that no obstructions such as lint or foreign matter can interfere with the opening or closing of the knives. With these blades, pressure on the blades is concentrated on the filling end in the tips of the knives.

THE THREAD CUTTER goes into the shuttle, catches the filling on the exhausted bobbin, and holds it until the filling is cut by the temple knife.

Shuttle-Eye Thread Cutter With Floating Binder for W-Looms

A thread cutter that cuts the exhausted filling end near the shuttle eye on W-looms was highlighted by H. F. Livermore Corp., 20 Linden St., Boston, Mass.

The thread cutter is claimed to be positive in its opening and closing action and simple in construction. It prevents jerk-backs because it grips the filling tight and cuts and holds the filling at the shuttle-eye level.

The floating binder for the drive end of W-looms is required if the Livermore thread cutter is used. The binder is slotted to permit the thread cutter to extend through a slot in the shuttle so that the filling may be cut.

The binder also keeps the face of the leather covering in line with the shuttle to permit close shuttle boxing.

JUST LOOSEN THE SETSCREW with an Allen-type setscrew wrench to adjust this new-type loom beam made by Hayes Industries, Inc., 437 Fern Ave., Jackson, Mich.

Three-Piece Fabric Checkstrap Lasts for a Long Time

A fabric checkstrap of the endless type was shown by Dayton Rubber Co., 2342 Riverview Ave., Dayton 1, Ohio.

The strap can be used on any loom that is equipped with the fingers to run conventional-type endless checkstraps. The company claims that the low-cost strap will result in smooth shuttle checking because

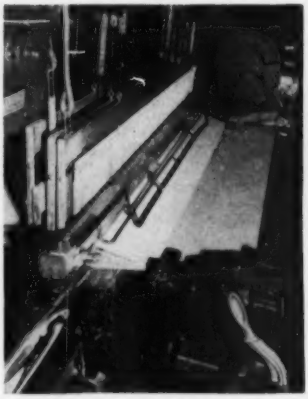
the fabric is not affected by temperature and humidity changes.

An added advantage of the strap is that a worn or broken piece of the strap can be replaced without disturbing the other two pieces.

Liquid Warp Lubricants Are Dispersible in Water

A micron size in liquid form was shown by Southern Sizing Co., 601 Campbell St., East Point, Ga. The size may be metered through a pump to the size cooker.

It is said that a warp sized with this material will result in a smooth warp that will weave well at the loom. Instantaneous mixing with cold starch slurry is possible. Complete dispersion in heated starch paste for homogenized-sizing mixes results when the liquid size is used.



THE CENTER-FILLING FORK of the rayon-loom type is used on this X-2 loom to reduce broken picks in cotton cloth.

Single-Shuttle Cotton Loom Has Center Filling Stop Motion

A 52-in. X-2 loom weaving cotton cloth of 107 sley and 56 picks per in. was shown by Draper Corp., Hopedale, Mass.

The feature of this loom is a center filling stop motion. The advantages of this stop motion over the side-fork type are that fewer broken picks are made and that a wider reed space is available on the same width of loom.

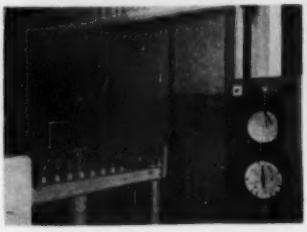
Since the center fork stops the loom on the same pick of a broken filling thread, "pick ups" of the filling thread are eliminated and fewer broken picks are made in the cloth.

This X-2 loom is driven by the No. 2 Draper Diehl power transmitter.

Larger-Diameter Heads Will Fit Old Loom Beams

Adjustable wooden loom-beam heads up to 32-in. dia. to replace smaller heads on old beams were shown by Allen Beam Co., New Bedford, Mass.

A new wooden warper beam for nylon, acetate, and other synthetic fibers was also shown. This beam incorporates a rock-maple barrel, cast-iron supports at the ends, and a hub that extends through the barrel and the heads. The beam heads are of three-ply hardwood construction. The beam is accurately balanced for speeds up to 1,000 yd. per min.



INSULATING PANELS that make up the sides of the new slasher dryer prevent heat loss into the room. Doors allow for accessibility and ease in cleaning.

INTERIOR OF THE UNIT cools automatically when the stop switch is thrown by the slasher tender. Yarn damage from exposure to too high temperatures is thus eliminated.

Smaller Slasher Dryer Dries to 750 Lb. per Hr.

The Model B Uxbridge Gentle-Air slasher dryer, designed to dry up to 750 lb. of yarn an hour, depending on the yarn number or numbers and the number of ends going through, was on display at the booth of Bachmann Uxbridge Worsted Corp., Uxbridge, Mass.

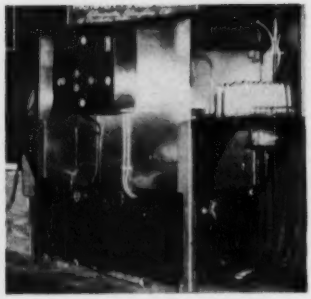
Drying is accomplished by passing heated air through the yarn sheet going through the unit, exhausting the moisture-laden air, and at the same time introducing fresh air to continue the drying. From 70 to 80% of the exhausted air is reheated and reused.

Only 15¼ yd. of yarn lengthwise is in the box at one time. Special nozzles reduce the air velocity created by an internal fan and distribute it evenly over the sheet of warp ends.

Lighter Leather Is Self-Polishing

A leather for binders and box fronts was shown by Graton & Knight Co., 356 Franklin St., Worcester, Mass.

The company says that the leather needs no waxing since the shuttle will polish the surface soon after the binders are placed in operation.



A NEW PIN BOARD CONDITIONER built by Mona Industries, Inc., Paterson, N. J., has an oscillating carrier that permits a more uniform spray from below the board. Feeding and unloading at the same end is possible. Monalit solution is used with the machine to produce a fog of controlled density.

New Finishing Products Offer Improved Functions

1. Seyco #1656 is a new nonvolatilizing oil used in high-speed, high-temperature preshrinking processes. It is good for temperatures above 450° F. It also serves as a rewetting agent for further processing, according to the makers, Seydel-Woolley & Co., Atlanta, Ga.

2. Seyco #2600 is a new fatty-ester penetrant finish with wetting and rewetting properties. The cost of this product is low.

3. Seyco Nonionic AB is a new product that has been used, according to the makers, as a scour for hot-oil dyeing and is said to have good emulsifying power and stability.

This New Slasher Will Handle Cotton, Synthetics, Wool, Blends

Complete uniformity in sized warps is said to be possible on the new slasher made by Tower Iron Works, 50 Borden St., Providence 3, R. I.

The head ends of the slasher incorporate these improvements:

1. New location of the loom beam puts the comb in easy reach of the operator.

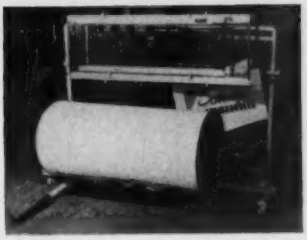
2. The main controls are grouped in a panel at the operator's finger tips.

3. The loading of the pressure roll is positive and accurate since pneumatic power is used.

4. The rolls are turned and polished and are mounted in ball bearings that are mounted on welded steel frames. This construction is said to permit accurate alignment and eliminate vibration problems.

The size box features a design to eliminate rolling of yarns, pneumatic loading of squeeze rolls, an efficient steam coil and an insulating jacket to provide uniform size temperature, a stainless-steel size box and rolls, and a self-locking immersion-roll lifting mechanism.

The creels have electrically controlled pneumatic brakes to control stretch. Section beams are supported by adjustable ball-bearing units.



ONE MAN CAN PLACE a drawn warp in a loom after the harnesses are hung if he uses this truck.

One Man Can Place Drawn Warps in Looms

A warp truck to transport drawn warps or warps that are to be tied to another pattern from the preparation department to the loom and to place the warps in the loom was shown by Greenville Belting Co., Div. of Schmidt Mfg. Co., 206 Emile Ave., Greenville, S. C.

One man can perform all the operations. He lifts the warp to the truck and also places the warp in the loom.

The truck does not touch the warp since all lifting is done against the loom-beam journals.

Two Shuttles of New Design Last Longer Than Old Types

New features have been added to a shuttle for S-6 looms by Steel Heddle Mfg. Co., 2100 Allegheny Ave., Philadelphia 32, Pa.

The tip has been changed so that it is held firmly in the shuttle. The eye design has also been changed to insure "threading up" on the transfer of the bobbin.

The whole shuttle is strengthened by the use of a plastic material that is said to give longer shuttle life.

This manufacturer featured another new shuttle, the "Duraweld." Dogwood is used at each end of the shuttle and is bound by a cloth laminated with a plastic material. This shuttle is said to be stronger and smoother than other shuttles of wood or fiber made by the company.

► **Nine colors of identification bands** for cans in all yarn processing were shown by Dayton Rubber Co., 2342 Riverview Ave., Dayton 1, Ohio.

► **An automatic reed- and heddle-cleaning machine,** called the Robot, was shown by H. J. Theiler Corp., 22 Ashmont Ave., Whitinsville, Mass. Two brushes, made of bronze wire or horsehair, brush from either side. The brushing action vertically is adjustable from 1¼ to 1¾ in. For harness cleaning, the two brushes make a parallel up-and-down motion at a lower rate of speed than that used for reed cleaning. About 18,000 heddles can be cleaned per shift. Reed-polishing stones are available as attachments for final polishing.

A New Sizing Material Is Mixed With Cold Water

A cold-water size that can be used in the usual starch kettle was shown by National Starch Products, Inc., 270 Madison Ave., New York 16, N. Y.

It is claimed that the starch will not thin down or break down and that it will wash out with soap and water.

A Synthetic Wax Is Used In Size for Orlon and Dacron

Orlon and Dacron can be sized with a low-melting hard synthetic wax that is added to other warp-sizing agents. Texize Chemicals, Inc., P.O. Box 305, Greenville, S. C., showed this product.

Another product developed by Texize is a non-foaming emulsion with a binder and lubricant combination to be used in homogenizers.

► **Results obtained** from the use of a pilot-plant slasher in their laboratory were shown by Corn Products Sales Co., 1304 South Carolina National Bank Bldg., Greenville, S. C.

Lay-End Straps Have Snaps For Quick Replacement

Leather lay-end straps that are equipped with snaps were shown by J. E. Rhoads & Sons, 35 N. Sixth St., Philadelphia, Pa. A loomfixer can put one of these straps on the loom quickly without any tools.

An endless checkstrap of two-ply leather and one of one-ply were also shown.

► **A thread cutter** that prevents wild yarns and jerk-backs from getting into the cloth was shown by Columbus Textile Specialty Co., Columbus, Ga. This cutter, called the Holcombe Thread Cutter, is said to never fail to cut the thread and does not pinch the filling. On the second beat-up after the transfer, the thread cutter makes its cut. This cut takes care of the loose thread from the battery by cutting it at the selvage, where the wild or loose thread cannot reach the cloth. The cutter does not injure the shuttle, it is said, and the undamaged shuttle lasts longer.

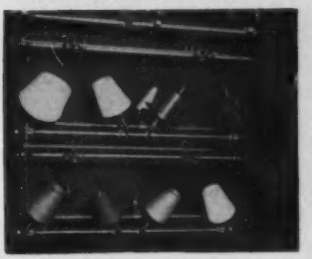
Checkstrap Helpers Make Checkstraps Last Longer

Checkstrap life is said to be extended if a helper is used. Two of these helpers were shown by Slip-Not Belting Corp., Box 3061, Greensboro, N. C.

One type of strap is the single helper that protects the inside of the checkstrap on the power stroke.

The second type of helper is a double type and is added to a conventional checkstrap.

Another checkstrap of the endless type was shown. This strap (Kwik-Lock) can be applied to the loom without removing the picker stick or lug.



VERTICAL MAGAZINE CREEL is designed to provide the advantages of high-speed warping and magazine creeling to users of large packages and heavy yarns.

Three Creeling Developments Offer Potential Savings

Three new developments in creeling, available separately or as a complete creel, were shown by Edward J. McBride Co., Inc., 1402 Adams St., Philadelphia 24, Pa. The three things are a stop motion, a cone holder, and a vertical creel.

Positive action under all conditions is claimed for the mercury stop motion. Lint or dust cannot get into the hermetically sealed units. The stop motion is available in types for both heavy and light yarns.

Cone holders that provide instant change from cones to tubes and that accommodate most types and sizes of packages were also shown. There are no setscrews or other mechanical adjustments of any kind required to make the conversion from cones to tubes.

Users of large packages and heavy yarns are now offered a vertical magazine creel that provides the advantages of high-speed warping and magazine creeling. The package is said not to have a tendency to slip or slide off the cone holder, and having the package vertical means that the balloon is uniform because the pull of gravity is the same on all sides of the cone. The creel can be designed to handle packages of any size.

Rotary-Automatic Machine Cleans and Polishes Reeds

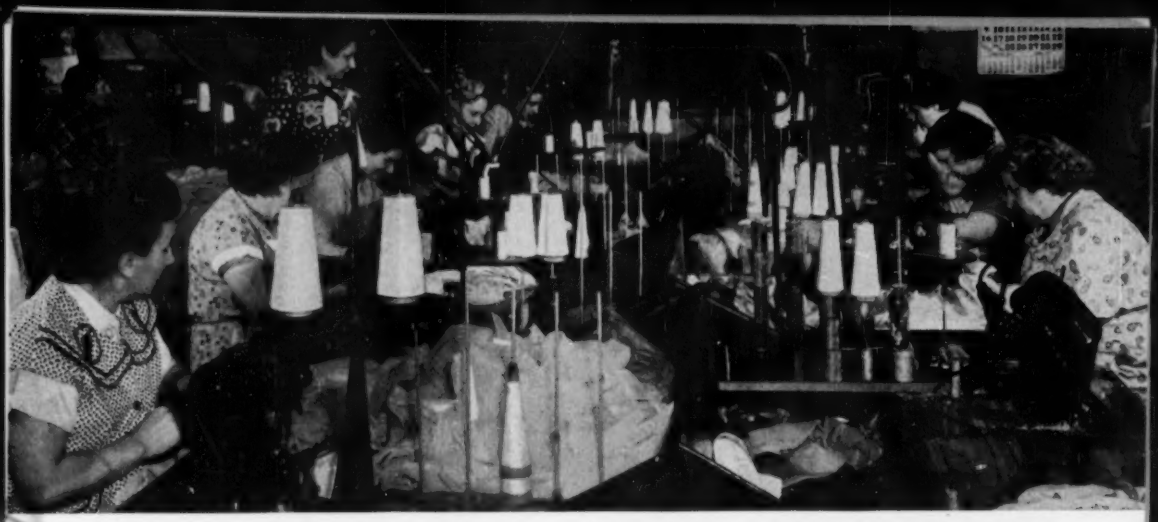
A Shawmut rotary-automatic reed cleaning and polishing machine was demonstrated by Greenville Belting Co., Div. of Schmidt Mfg. Co., 206 Emile Ave., Greenville, S. C. The machine is fully automatic and holds up to 20 reeds of mixed lengths at once. Burrs and sharp edges are removed from the reed dents, and interchangeable wire and nylon brushes polish every type of reed to a smooth finish.

Three Warp-Sizing Products Are for Specialized Uses

All-viscose yarns or blends that contain viscose may be sized with a gum prepared by Anheuser-Busch, Inc., Corn Products Dept., 1112 Johnson Bldg., Charlotte, N. C.

Another gum is a special preparation for blends of viscose, acetate, and nylon.

A starch developed to be used in a homogenizer was also shown.



NO MORE LUBRICATION WORRIES. Sidele Fashions, Inc., of Philadelphia, manufacturer of women's rayon and nylon blouses, keeps 275 sewing machines in constant operation. The oil in use a year ago formed crystalline deposits which prevented lubrication and necessitated a lot of costly maintenance. The trouble was eliminated when the company changed to Sunotex.

FAST-MOVING PARTS PROTECTED BY SUNOTEX MACHINE OIL LIGHT

Sidele Fashions, Inc., uses more than 275 sewing machines in the manufacture of nylon and rayon blouses. Running at speeds as high as 5500 rpm, these machines require the finest of lubrication. But a year ago they were not getting it, and Sidele was concerned. The oil in use formed crystalline deposits which coated and hardened the wicks—preventing them from lubricating bearings and other fast-moving parts. Crystals also formed on the oil screens, in the oil lines, and at the bottom of the sump. Parts had to be replaced frequently, and every machine had to be torn down and cleaned completely several times a year.

A Sun representative, called in to study the situation, persuaded Sidele to run a 6 month test on Sunotex Machine Oil Light. This was done on an overlock stitching machine, which operates at the highest temperature of all the equipment in the shop. The results were completely satisfactory, and as a result Sunotex has been used on all 275 machines ever since. Though far less costly than the oil it replaced, Sunotex, because of its high chemical stability, does not form deposits. Consequently the wicks are always soft and all moving parts are kept well lubricated. The machines need only routine cleaning. Sunotex, in addition to being an efficient lubricant, scours out easily and completely when it is accidentally dropped on fabrics.

SUN OIL COMPANY, Dept. TW-11
Philadelphia 3, Pa.

☐ Please send me the booklet "Sunotex Machine Oil and Sunotex Machine Oil Light." ☐ Please have a Sun representative contact me.

*Name*_____

*Title*_____

*Company*_____

*Address*_____

*City*_____ *Zone*____ *State*____

TECHNICAL ASSISTANCE. Remember that Sun's engineers are at your service if you have a lubrication problem. It will pay you to utilize their broad experience.

UNINTERRUPTED OUTPUT. With the use of Sunotex, Sidele's production has never been interrupted by machine failures traceable to oil.

COMPLETE SCOURABILITY. Although far less expensive than the oil previously used, Sunotex Machine Oil scours out easily and completely.

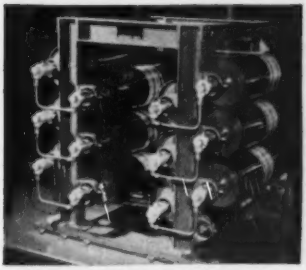
SUN INDUSTRIAL PRODUCTS

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL

SUNOCO

Bleaching, Dyeing, and Finishing

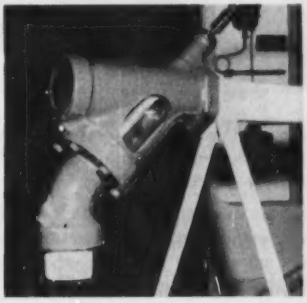
BRINEMAKER, made and distributed by Morton Salt Co., Industrial Div., Chicago, Ill., is designed to produce a maximum of saturated brine in a minimum space. The unit is adjustable to any desired flow rate within its capacity.



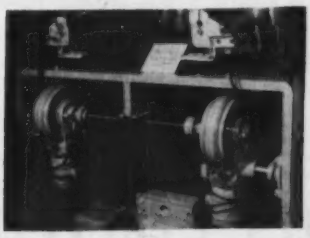
LABORATORY CONTACT DRYER, made by The Textile Shops, Spartanburg, S. C., has a variable-speed drive, self-contained heating unit for water heating, and an estimated drying capacity of 50 lb. per hr. minimum. The unit is made of Type 316 stainless steel.

A POSITIVE OVERFEED AND SELVAGE GUIDER, designed to permit running at variable speeds with a constant percentage of overfeed, is sold by Marshall & Williams Corp., Providence, R. I., under license by John Dalglish & Sons Ltd., Glasgow.

CONTINUOUS ROPE WASHER, shown by Proctor & Schwartz, Philadelphia, Pa., is designed to handle a single-strand rope in a tensionless, balanced flow. Designed for washing knit goods, the washer accomplishes its function by an arrangement of tapered nip rolls that automatically alter speed as necessary.

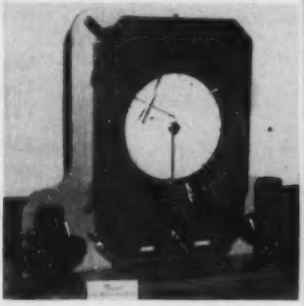


A SCRAPER STRAINER with a helical scraper removes undissolved solids from solutions, pastes, or slurry. The angle-type SRS strainer discharges waste into a container trap below. Type VRS is a vertical strainer. Helix may be motor driven or manually operated. The makers are Sarco Co., Inc., New York, N. Y.



TENTER RAIL FEEDERS shown by Mount Hope Machinery Co., Taunton, Mass., contain two oppositely rotating induction clutches, continuously driven by a single motor. The unit is said to provide maximum accuracy, within 1/16 in., at highest cloth speeds.

QUETSCH-ROLL PRESSURE CONTROLLER measures and controls actual pounds of pressure applied directly to the roll. Friction or leaking air do not affect the readings. Taylor Instrument Companies, Rochester, N. Y., make the device.



VOLUMETRIC RECORDER CONTROLLER permits setting and recording of high-pressure nip rolls on calenders, padders, or other heavy-pressure equipment. Taylor Instrument Companies, Rochester, N. Y., claim the units are accurate for tensions from 5,000 to 20,000 lb., and pressures up to 200,000 lb.

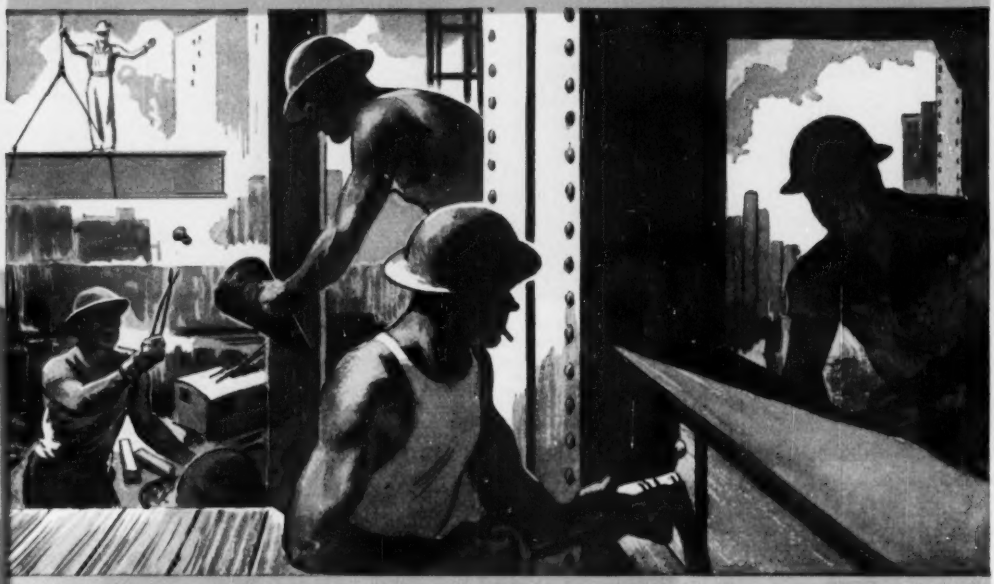
Black Radiant Heat For Nylon Stabilization

Black radiant-heat panels, called Fiber Glass Super Heaters, that are used in tandem and that have a 36x40-in. heating area for ordinary purposes were shown by Sill Industries, 51 Madison Ave., New York 10, N. Y. Capable of being made for any fabric width up to 144 in., the new units are especially good for nylon stabilization of tricot fabrics.

Two units can be used best at a speed of about 20 yd. per min. for curing. Six units used as three pairs would make a top speed of 60 yd. per min. possible. Tem-

Teamwork

From the steel skeleton, precisely riveted together — to its gleaming facade — a new building is the result of teamwork all along the line. Teamwork helps — in construction — in industry.



What can we do to help insure the future of your business? That's what Butterworth engineers have been asking for 131 years — the question has special meaning today.

Thinking of new machines? We will do the utmost to meet your requirements. Making long range plans? Our engineers are at your service. Even now they are teamed with many of America's leading mills, thinking of the years ahead and planning with them to maintain their competitive position.

Butterworth service is offered too, to help your wet finishing department get the most out of what you now have — to keep equipment at peak efficiency. It may be only a spare part you need — but if you need it in a hurry, you'll get it in a hurry if it is humanly possible.

A letter, a wire or a phone call will put a Butterworth engineer on your team.

H. W. BUTTERWORTH & SONS COMPANY
Bethayres, Pennsylvania

1211 Johnston Bldg., Charlotte, N.C. • 187 Westminster St., Providence, R.I.
Machines for Bleaching, Boiling-Out, Mercerizing, Dyeing, Finishing and Embossing : : Pot Spinning Machines for Synthetic Fibers
Calender Rolls : : Tenter Chains

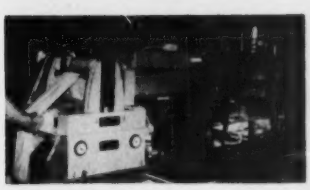
BUTTERWORTH

peratures up to 700° F. are provided for, but any temperature up to that amount can be set and controlled within ±50 F., so that automatic constant-heat output is assured.

Black radiant heat is invisible, presents no fire hazard, is lowest in cost of operation of any electrical-heating unit, and has no discernible effect on dyed colors. And there is no maintenance cost on the panels.

At a kilowatt cost of ½ of $0.01 per hr., two panels can be operated as a team for 12¢ an hour.

A NEW-TYPE TENTER CLIP has a swing-foot jaw that provides a positive surface-to-surface grip that will not cut films or glazed fabrics. Marshall & Williams Corp., Providence, R. I., is the manufacturer.



11 FT. IS ALL that is required for this new high-speed radiant heating panel unit that serves as a primary source of heat or as a booster to step up present dryer efficiency.

Radiant Heating Panels Dry in Only 11 Ft.

An efficient radiant-heat drying system for boosting the rate of all drying processes was shown by Sill Industries, 51 Madison Ave., New York 10, N. Y. Called the SupeRadiant heater, the infrared heating panels are said to exceed ordinary forms of infrared heating by more than 50%.

Heaters are placed close to the material running through. Radiant heat is poured into the fabric rather than the surrounding air, it is said.

Panels are built to any width. Low-pressure air circulators conduct air through the entire surface of the unit. Exhaust ducts take away the moisture-laden air. Heater temperatures scale up to 1300° F. and are closely controlled.

More efficiently used as a booster unit to aid drying in a short length of space, the SupeRadiant heater is designed to be set up in an 11-ft. area.

In one mill 36-in.-wide 4-yd.-per-lb. cotton cloth is run through the unit at 150 ft. per min., and the moisture content is reduced in 11 ft. from 50% to 5%. In this particular case, operating costs ran to $1.86 per hr. at $0.01-per-kwh. cost to dry 3,000 yd. of cloth.

Three New Finishing Units Add Flexibility to Ranges

New Tenterettes, 80 and 100 in. long, made by Marshall & Williams Corp., Providence, R. I., are well suited to fit in ranges where short-run tentering is needed. A new-type movable let-off stand, another device shown by the company, has a jack-handle and casters for easy mobility. A swing plaiter equipped with antifriction bearings throughout is claimed to be a trouble-free unit.

Three New Finishing Devices Add Operating Efficiency

1. A selvage uncurler that is simple to mount and usable on delicate or heavy fabrics has been developed by Mount Hope Machinery Co., Taunton, Mass. The device is made of a composition material said to be long wearing and resistant to chemicals used in finishing.

2. A weft viewer designed to permit visual checking of straightness of weft threads is especially good for use with weft straighteners, allowing the operator to adjust the mechanism. An oscillating mirror with stroboscopic action is the secret of the viewer.

3. A new adjustable-bow expander roll serves to provide flexibility where the proper bow for any specific job cannot be predetermined.

A CONSTANT-TENSION CLOTH-INSPECTION MACHINE produced by Birch Bros., Inc., Somerville, Mass., features a hydraulic center-wind drive on both the wind-up and let-off bars and a variable cloth-speed range of 4 to 80 yd. per min. with cloth speed over the table remaining constant during cloth-roll build-up. Variable cloth tension, adjustable from zero to medium, remains constant at the predetermined setting during cloth-roll build-up. A magnetic brake and measuring counter are provided.

New Antistatic Finish Is Nonyellowing and Stable

A new product of Chas. S. Tanner Co., Providence, R. I., called Lubritone, is said to have a number of desirable qualities. Used as an antistatic agent, it is said to be a good softener, completely dispersable in water, nonyellowing, and stable in storage. It is also said to have good rewetting properties and to have no effect on shade or lightfastness of dyes.

New Shear Has Flock Remover That Uses Air-Draft Skeleton Revolver

A vertical three-blade synthetic shear was shown by Parks & Woolson Machine Co., Springfield, Vt. An air-draft skeleton revolver carries the blades, while an air suction pulls flock down and away from the cloth. Two blades shear the face, and one blade shears the back without reversing the cloth. This unit is included in the new sueding range made by the company. A reservoir-swab lubricator operates while the stop button is pushed and swings back when the machine is running. The butt seam goes through the gap rest at 150 yd. per min. without stoppage.

Auxiliaries

Tri-Rail Cleaner Designed for SG-1 Frame

Precontrolled and varying velocities of air down and across both sides of the Saco-Lowell SG-1 spinning frame were cited as outstanding features of the new Tri-Rail cleaner running at the booth of American Monorail Co., 13108 Athens Ave., Cleveland, Ohio. The weight of the cleaner is carried by the center rail of the frame. Two other rails act as stabilizers. No lubrication of the cleaner is required because of the ball-bearing construction.

The cleaner can carry 55 volts in the center rail, which acts as a current conductor. No collector shoes are necessary to pick up current. The unit is designed for continuous-loop or reversing operation. With the reversing type, the cleaner uses phase reversal rather than an expensive gear chain as has been used in the past.

The cleaner has three traction-drive

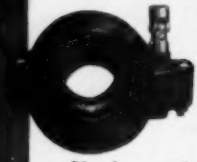
V-R is 1st Again

in Advancement of 2-3 Pick and Hank

COUNTER DESIGN

For 30 years, Veeder-Root has scored the important "firsts" in advancement of counter design . . . studying the needs of mill men and giving *them* what they need. Now here again is a V-R "first" which offers additional new features:

- EASIER TO READ, reset and maintain.
- SHEAR-PIN TYPE OF PROTECTION built into reset knob.
- 4th UNIT CAN BE ADDED for use as 4th-shift counter or as totalizer.
- BRASS BEARINGS on horizontal shafts.
- BRONZE OILITE BEARINGS on vertical drive shafts.



NEW PLASTIC CONNECTION (at left) . . . cuts installation time, maintenance costs . . . resists humidity, wear, vibration.

Yes, here again is V-R Value, and in fuller measure than ever before. See your nearest Veeder-Root office.

VEEDER-ROOT
INCORPORATED

"Counting House of the Textile Industry"

HARTFORD 2, CONN. • GREENVILLE, SO. CAROLINA

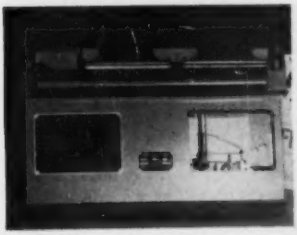
New York 19, N. Y. • Chicago 6, Ill. • Greenville, S. C. • Montreal 2, Canada • Dundee, Scotland • Offices and Agents in Principal Cities

You are invited to visit our new Southern Sales & Service Headquarters — an easy 6-mile drive from Textile Hall, straight out Route 29 on Greenville-Spartanburg Highway.

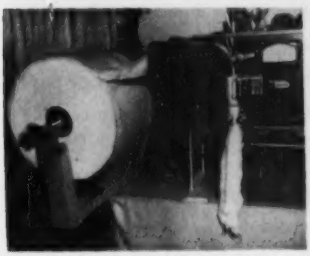
motors in all, connected into electric circuits by means of plugs. No tools are necessary to mount the motors or to transfer them. Operating current is 50 volts.

The construction of the cleaner is essentially aluminum, with a painted steel housing. No shielding is necessary.

LAP TESTER may be attached to any Uster evenness tester and makes possible the indication, recording, and (with an integrator) automatic calculation of inch-by-inch variation of a picker lap while it is being made. The tester remains in the laboratory and is connected to the measuring head by wire.



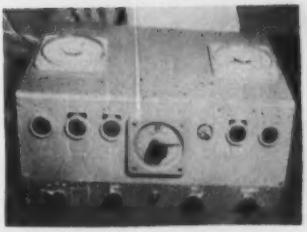
SEMIAUTOMATIC FIBROGRAPH automatically plots the staple diagram while the operator is combing a sample for the next test. The device is sold by Uster Corp. for Special Instruments Laboratory, Knoxville, Tenn.



SLIVER-LAP ATTACHMENT for the Uster evenness tester consists of a stand that holds the lap and a "condenser" that guides the sliver through the largest measuring comb of the tester.

Three New Devices Aid Quality-Control Programs

In addition to three brand-new quality-control devices, Uster Corp., 2516 Wilkinson Blvd., Charlotte, N. C., also showed Pneumastop—the stop motion that is said to put the roving frame on the same basis as the automatic loom—and Rotofil—the device that false-twists a filament strand to give the measured segment the equivalent of circular cross section and permit accurate measurement of variation.



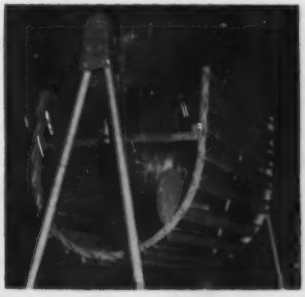
THE TWO LARGE DIALS at the top of the new Pacific integrator show (in mils) average thickness and average thickness squared.

Integrator Now Available For Pacific Evenness Tester

Tedious calculation of graphs for the Pacific evenness tester is now a thing of the past, according to Anderson Machine Shop, Inc., Brook Rd., Needham Heights, Mass., which showed an integrator for the tester.

The integrator functions for any preset time from 15 to 150 sec. and also for 4 min. Accuracy is said to be unaffected by humidity or temperature, and the unit can be easily installed on any Pacific tester.

A visual reset on the integrator shows the complete clearance of a previous test. Other features of the unit are a built-in voltage regulator and four ranges.



THIS OVERHEAD TRAVELING CLEANER, the Allred model, is still in its developmental stage but was a feature of The Bahnson Co., Winston-Salem, N. C. The cleaner is said to offer many combinations of ceiling and machine cleaning but should be especially suited for use in card rooms. It is not intended for spindles but could be used to clean the spinning-room ceiling in conjunction with a downdraft cleaner.

A kicker hits the lever sticking out from the cleaner, and the fan turns on its axis approximately 45° to blow a different section. The protective grill is another feature of the cleaner. The portion of the grill in line with the card webs can be closed to prevent damage to the webs.

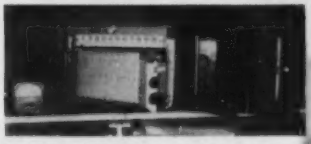
▶ A new industrial slimline fluorescent-light fixture with over 90% efficiency and over 20% uplighting was featured by Smithcraft Lighting, Chelsea 50, Mass. The lamp holders are interlocking, and this feature gives an almost continuous line of light.

New Greases and New Oil For Rings, Dobby Heads, Lifters

Three new greases and a new oil were displayed by Keystone Lubricating Co., Philadelphia 32, Pa.:

1. Nevastane light stainless grease for a centralized greasing system on twister rings
2. TRB hand-dabbed grease for twister rings
3. No. 96 liquid, non dripping, non-crimping grease for dobby heads
4. P3B oil for lifter rods

These lubricants were developed by Keystone to fit into its program of using a few lubricants for a lot of work.



SIMPLICITY of unit construction and ease of maintenance are two important features of this readily accessible recording instrument.

Simplified Recording Potentiometer Gives Fast Chart-Speed Changes

The Weston Model 67001 recorder of the null-balancing (potentiometer) type, which uses a line-driven synchronous converter and amplifier to control a two-phase motor and to rebalance the measuring circuit, was a new instrument shown by Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark 5, N. J. The instrument is useful in installations where it is necessary to carefully check and record temperature, d.c. or a.c. current or voltage, speed, speed ratio, power, frequency, pH, light intensity, or any other quantity that can be converted into electrical values.

The sensitive recording pen requires only 1½ sec. to go across the 11-in. scale chart. Various chart ranges are available. Chart speeds, adjustable from 1 to 6 in. per hr., are changed with a screwdriver. Indication accuracies are set for within ± ¼ of 1% on ranges above 10 millivolts.

The instrument measures 13¾ x 11¼ x 14 in. when closed and in use.

Dust Removed by Centrifugal Action and Filter Cell

An air cleanser that proved 99.9% efficient at full capacity in tests in which Fuller's earth was used as dust (average particle size of 3 microns) was featured by American Air Filter Co., Inc., Louisville, Ky. The air is mixed with oil, which is thrown out by centrifugal action and takes over 90% of the dust content with it. The remaining dust and small amount of oil are removed in the filter cell. Positive oil circulation insures self-cleaning action.

The unit is also used as an intake

IT'S FUTURE IS IN YOUR HANDS

NOW-A-DAYS it takes extra know-how to give the fabrics you process a bright future. What are they made of — rayon, acetate, one of the synthetics or a blend of two or more of these modern fibers? How will they dye? How best bring out the desired finish?

For fifty years Van Vlaanderen has worked in close cooperation with the Dyeing and Finishing Industry. Through the foresight and design ability of its engineers, Van Vlaanderen equipment has become today's choice for processing modern fabrics.

The Tensionless, Constant Speed Dye Jig shown is a unit of advanced design, built ruggedly and with precision for quality service today and in the years to come. Why not see it at work. Write, phone or telegraph.

VAN VLAANDEREN MACHINE COMPANY

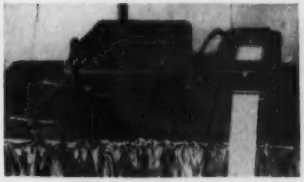
370 Straight Street, • Paterson 3, New Jersey

Cable address: Vlaanderen, Patersonnj, U.S.A.

In the South – Parrott and Ballentine • 610 South Carolina National Bank Building • Greenville, South Carolina
In Canada – Fawcett and Company • 34 High Park Boulevard • Toronto, Canada

WORLD'S LARGEST MANUFACTURER OF MACHINES FOR PROCESSING MODERN FABRICS

silencer on engines or compressors. Silencing is accomplished by breaking up the sound waves as they pass through the oil-coated vanes and by changes in the air-flow channel.



RECORDING of both direction and magnitude of strain on shafting, spindles, plates, or other areas of machines is possible with the Brush Universal Amplifier (left) used with the direct-inking Oscillograph on the right.

Universal Amplifier Measures and Records Strain

A Universal Amplifier, Model BL-320, which measures and records the slightest strain or twist on metal shafts or shafting by means of resistance-sensitive pickups that are attached to the shafts, was part of the exhibit of Brush Development Co., 3405 Perkins Ave., Cleveland 14, Ohio. The equipment records either static or dynamic strains up to 100 cps. Direction as well as magnitude of the strain can be read from the chart.

Provision is made for switching a calibrating resistor into the bridge circuit and adjusting the over-all gain.

YOUR OWN LICKERIN-BEARING HOUSING can be used to convert from the bushing-type bearing to a self-aligning, permanently sealed Sealmaster bearing. Moffatt Bearings Co., Philadelphia 30, Pa., explained how this conversion is done: the old bushing is knocked out and an internal radius that will match the external radius of the bearing is ground.

The advantages of this conversion are:

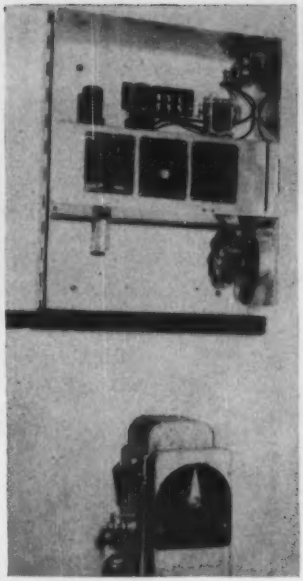
1. No further maintenance is required

2. Accurate settings are maintained because there is no wear

3. No lubrication can get on the lap

4. The new bearing outlasts the bushing-type bearing by some years

▶ **Swivel and matching stationary casters** in the 99 A and 98 A Series for heavy-duty textile-mill work were shown by The Bassick Co., Bridgeport, Conn. Of double-ball-raced construction, the casters have a heavy pin with a machined stud washer, hardened bearing surfaces, and projection welding of the ball cup and horn.



ACCURACY heretofore impossible with conventional sensing elements is obtained from a non-organic aspirating-control element.

Aspirating-Type Unit Is for Closer Humidity Control

An electronic two-position, aspirating-type humidity control designed to control relative humidity in any space not completely air conditioned was shown by Barber-Colman Co., Rockford, Ill. The unit has an aspirating control to deliver an average sample of air to the control element in an effort to eliminate spotty conditions in the room.

A nonorganic-type element in the control is said to give accuracy heretofore impossible with conventional sensing elements.

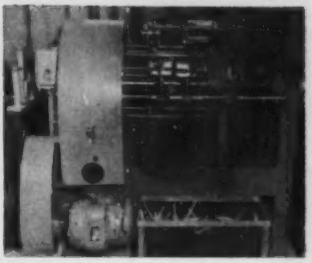
The Barber-Colman Co. also displayed for the first time the Capacilog and Chronotrol.

Capacilog is an electronic temperature recorder and controller for the range of 150° F. to 3,000° F. and is used primarily for dryers, coating machines, and the like.

Chronotrol is a completely automatic combined time-temperature controller that is used primarily for size cooking.

Electronic Card Punch Operates at 6,000 per Hr.

The electronic calculating punch was shown for the first time by International Business Machines Corp., 590 Madison Ave., New York 22, N. Y. The machine has a potential capacity of 360,000 operating steps per hour and can perform up to 60 steps on a single card. This card punch was part of the system described in TEXTILE WORLD, July, 1952, p. 87.

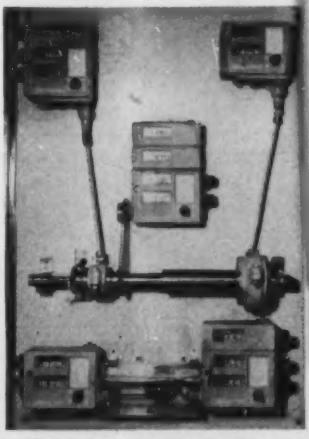


LOOM BOBBINS CAN BE RUN LONGER if they are polished in this bobbin-polishing machine.

Automatic Quill Polisher Cleans 20 to 40 Bobbins per Min.

Ralph Gossett & Co., 204 Crawford Bldg., Greenville, S. C., showed an automatic quill polisher for refinishing loom bobbins. The polisher, a Nash-79 model, is designed to refinish bobbins in mills after a quill stripper strips the bobbins of waste yarn.

The polisher cleans, buffs, and polishes the bobbins automatically. From 20 to 40 bobbins per min. can be polished. There is no harsh or abrasive action during the polishing process, and the bobbin comes from the machine free from sharp surface projections that might break the filling in a loom.



NEW PICK AND HANK COUNTERS said to be easier to read, reset, and maintain were shown by Veeder-Root, Inc., Hartford 2, Conn. Shear-pin protection built into the reset knob, a fourth unit for an extra shift or for totalizing, and brass bearings on horizontal shafts are additional features.

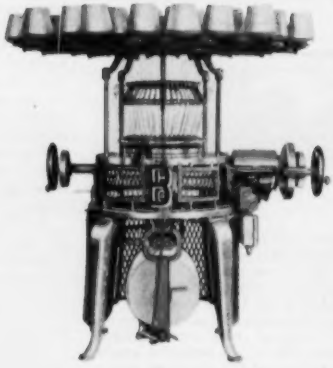
Volatile Crystals Form Layer To Prevent Rust

VPI crystals, a rust preventer, were featured by Shell Oil Co., 50 W. 50th St., New York, N. Y. The rust preventer is used in the shipping and storage of

LEADING THE KNIT PARADE

Carter's

for layet-teers and busy toddlers



Model MERCEDES Style RMP

This high production revolving cylinder machine makes a wide variety of articles. It produces that fine balbriggan or plain jersey fabric for either underwear in bleached finish or basque, polo to T-shirts with colored yarns.

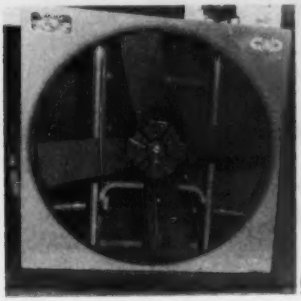
It has no special attachments—it's easy to understand and operate. It operates continuously, too, by simply using double cones on the stationary bobbin table.

Write for more detailed information on the MERCEDES, a machine of proved performance with average production of 75 to 80 yards per hour on every machine size.

BRINTON

CIRCULAR KNITTING MACHINES

needles, zippers, machines, etc. The crystals are volatile and nontoxic. The area to be protected is isolated, and the crystals are introduced. The crystals vaporize and form an invisible layer on the surface. The item need not be kept in an air-tight box, for the VPI rust preventer operates in the presence of oxygen and moisture. Fingerprints cause no trouble with this rust preventer.



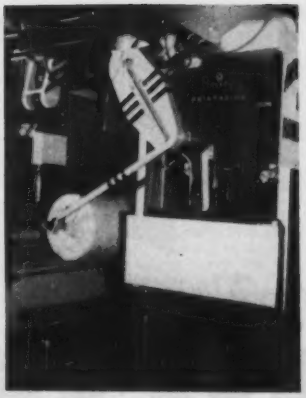
THE BLADE on this heavy-duty fan was featured by Chelsea Fan and Blower Co., Plainfield, N. J. The blade has an airfoil design and is nonoverloading. The blade was adapted from the propeller design of aircraft used in the past war. Air passes by the full length of the blade, and no vacuum is created to overload the motor. The fan operates against static pressure, and it is designed to be used in ducts to move large volumes of air and for the removal of smoke, heat, steam, and fumes.

UP TO TWO TONS can be carried by this single-girder crane that is controlled by the hand unit hanging down. The system is especially designed for handling heavy beams and warps in weave rooms.

Two-Ton Cranes For Complete Handling Coverage

Single-girder cranes with fingertip control for loads of one and two tons were part of the exhibit of Louden Machinery Co., Fairfield, Iowa.

The crane was mounted to a monorail system that had a transfer bridge attachment. The system allows cranes, carrier, and load to transfer from one set of runways to another.



HUMAN LIFTING AND CARRYING are eliminated by the new American Monorail system of lap handling in picker and card rooms.

New Lap-Handling System Weighs, Transports to Cards

The automatic picking up, weighing, and distributing of laps from pickers to cards was demonstrated in the booth of American Monorail Co., 13108 Athens Ave., Cleveland 7, Ohio.

The system consists of lifting, by means of metal arms, of the lap from the knocked-off position on the picker to an overhead Monorail carrier line. The lap is then weighed on a built-in Toledo scale to close tolerance and a printed record is made of each weighing. Push-button controls send the lap on down to an empty cradle behind an appropriate card.

Up to 10 different selective card-deposit arrangements are possible for mills running a variety of blends on their pickers.

Other advantages cited are: less labor required in picker room, less waste created, accurate record of controlled weights, and elimination of lap trucks.

REVOLVING CLEARER, black-enameled lease rods, a top clearer roll, cone adapters, and wooden loom flags of three colors were shown for the first time by Batson Mfg. Co., Inc., Fair St., Park Place, Greenville, S. C.

▶ A new 1,000-w. GH-12 fluorescent mercury lamp that gives 50,000 lumens of white light over a rated average life of 4,000 hr. was shown by Westinghouse Lamp Div., Chamblee, Ga.

Tooth-Grip Belt Drive Has No Slip or Creep

Positive-drive belts were displayed by Gilmer Products, New York Belting & Packing Co., Passaic, N. J. The tooth-grip belts do not depend on frictional grip for power transmission and are said to have no slip, creep, or speed variation. The pulling element is a neoprene-embedded, helically wound steel cable that eliminates the problem of stretch. Because of this characteristic, no tensioning is usually necessary, and the belts operate on fixed centers.

CORRECT SHUTTLE TENSION is said to result if shuttles are tested and set to the readings of this instrument.

Thread-Friction Testing Device Controls Filling at the Loom

A testing instrument that is said to positively control tension on the filling in a loom was shown by Ralph Gossett & Co., 204 Crawford Bldg., Greenville, S. C. The Tension-Rite device shows the exact tension on the yarn as the yarn comes from the shuttle. The withdrawal speed of the instrument is set at a predetermined position according to the size and type of the filling yarns. More than 200 single-shuttle looms and over 400 shuttles on shuttle-changing looms can be checked in 8 hr.

▶ Gilmer nylon loom strapping was shown by N. Y. Belting & Packing Co., Passaic, N. J. The strapping is constructed of nylon duck impregnated with rubber and is said to have less stretch, greater resistance to hook pull-out, and longer life.

Rotary-Type Infrared Dryer Has Nonscorching Feature

A rotary-type infrared dryer to be used in continuous processing operations was shown by The J. E. Doyle Co., 220 W. Sixth St., Cleveland 13, Ohio.

The pivoted coil heater elements rotate

The Amazing New

SOLUTINTS

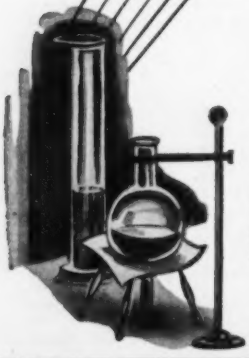
Economical Fugitive Tints for Low Cost Operations

Another
BORNE, SCRYMSER
First!

To satisfy the pressing need for efficient fugitive tints in the medium price range — Borne, Scrymser has developed SOLUTINTS.

SOLUTINTS are a series of fugitive tints that provide identification, lubrication, and improved processing of all natural and synthetic fibres. In addition to giving maximum tinctorial strength — SOLUTINTS combine controlled moisture retention with improved scourability.

Have the Borne, Scrymser representative give you all the facts. You'll find for low cost operations that SOLUTINTS are second to none.



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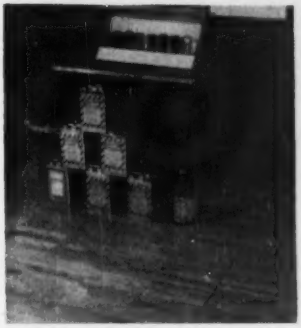
BORNE, SCRYMSER COMPANY
Elizabeth, N. J.
Charlotte, N. C.

through an arc of 180° or through any part of 360°.

The elements may be placed in a non-operating position to prevent scorching of fabrics when the cloth is not being drawn through the dryer.



NINE MONTHS WITHOUT POLISHING is about the average polishing condition for floors treated with this new finish.

New Floor-Treating Materials Reduce Maintenance of Floors

A new combination floor-treating material was demonstrated by G. H. Tennant Co., 2530 N. Second St., Minneapolis, Minn. The Tennant 101A buffing-gloss floor finish is used to treat wood floors to reduce by 40 to 60% the amount of labor required to maintain the finished floors.

Tests have shown that weave-room floors finished with the new material need to be polished only once each 90 days. These same floors formerly required attention once each week. In other departments of a mill, where floor wear is not so great, the floors require polishing only once in 9 mo.

The finish is said to be resistant to high-humidity conditions and to starch sizing materials.

A second product shown by the Tennant Co. is used as a hardener for concrete floors. The hardener is used as a sealer to solidify concrete surfaces to keep out water and moisture. The material stands up under the traffic of textile trucks and is easier to keep clean than untreated concrete.

Another product highlighted by the company for concrete floors was a clear floor sealer that is rubberized, quick drying, and durable. It protects floors against disintegration and resists acids, alkalis, and oils. The sealer protects floors from dust and makes them easy to clean.

▶ **Doff-box casters, 4 in. in dia., that have large close-fitting thread guards to shield the wheel from lint and loose yarn on the floor were shown by Wilkin & Matthews, 2511 Wilkinson Blvd., Charlotte, N. C. The chipproof, beveled, grime-resistant caster surfaces do not mark polished floors. The wheels have thrust-type ball bearings.**

THREE BALL-BEARING UNITS FOR CARDS were featured by Carolina Bearings Div., Tennessee Bearings, Inc., Greensboro, N. C. The doffer, lickerin, and cylinder units are designed to replace sleeve-bearing units. The ball-bearing units require grease lubrication instead of the oil that is used for sleeve bearings. Finer adjustments are possible with ball-bearing units, and better carding results. The cylinder ball-bearing unit reduces the starting torque of the cylinder to a minimum.

Nylon-Lined Bearings Can Replace Precision Bearings

Nylon-lined Thomson thin-walled bearings were shown by Moffatt Bearings Co., Philadelphia, Pa. The liner has a compensating gap that eliminates changes in bore diameter due to circumferential expansion and contraction. Nylon bearings in many cases eliminate the need for close clearances because the resiliency and toughness of the liner resist failure caused by pound-out or fatigue. This characteristic permits the substitution of nylon-lined bearings for precision bearings that require close tolerances in these cases.

Some of the other advantages are said to be silent operation, low cost, longer life, less maintenance, operation in liquids, and instant replacement of the bearing surface.

New Pillow Block Has Frictionless Lubricant Seal

A new pillow block, the Hess-Bright SY, made by SKF Industries, Inc., Philadelphia, Pa., is said to have a practically frictionless lubricant seal made of Du Pont Fairprene. Rotating flingers are provided to exclude dirt. The unit is provided for shaft diameters from 1⅞ to 2¾ in.

Motor Output Speed Controlled By Electronics

A new electronic control is a feature of the Ajusto-Spede drive of Louis Allis Co., Milwaukee 7, Wis. The drive requires no motor generator set or big tubes and uses an a.c. power supply. A rectifier tube supplies the direct current for the motor coil. The control element works on the voltage-comparison principle, with the action between the governor and the rectifier output taking place almost instantaneously and continuously to result in closely controlled speed of the output shaft. Speed regulation is controlled by a control-panel knob that operates a potentiometer.

Three New Coating Products

The Wilbur & Williams Co., Boston 35, Mass., announced the following products:

1. A rubber-coat, skid-grip, brush-applied floor compound that provides traction control on concrete, metal, or wood surfaces

2. A metal coat that dries in 10 to 15 min. under normal conditions, acts as both primer and finish coat, penetrates and stops irremovable rust, and is resistant to most chemical fumes, salt air, fruit acids, caustics, etc.

3. An odorless dampcoat finish that comes in flat, semi-gloss, or high gloss, is quick drying, and is applied by brush or spray

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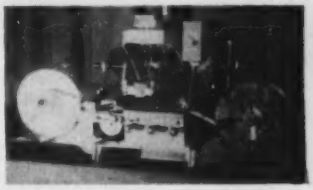
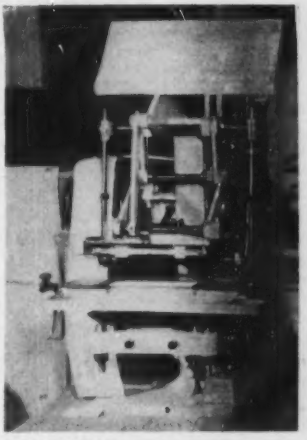


200 LABELS PER MIN. can be printed, perforated, and rewound on the Model 50A cone-sticker machine.



MODEL 45A box- and label-marking machine prints on either labels or boxes. Its head is fitted to receive either type or master plates. Maximum imprint is 2 5/16x6 11/16 in. Weight is 116 lb. Recommended operating speed is 65 to 85 strokes (impressions) per min.

Easily-Changed Marking Machine Produces 200 Labels per Min.

A cone-sticker tag-marking machine, Model 50A, that prints 200 labels a min. and on which the type can be changed in a matter of seconds, was on exhibit as a prototype by Markem Machine Co., 150 Congress St., Keene, N. H. Designed for marking labels up to 2 x 1¼ in. wide, on

TEXTILE BANKING COMPANY

Inc.

Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

gummed-back or plain tape, the unit automatically perforates as it prints 200 tags or labels a minute.

As the machine prints from a feeding roll on the right, it either perforates the tape on the left side of the machine and rewinds it or the unit can be set to cut and stack the labels.

FIRST PACKAGE to hit an arm of this conveyor-belt traffic regulator knocks a safety catch into the center cam of the other arm and keeps it from allowing a package on the second track to come through until the first package has passed the first arm. The unit was shown by Alvey Conveyor Mfg. Co., 9301 Olive St. Rd., St. Louis, Mo.

Power Transmission Units Are Designed To Control Power Flow

Two recent developments of the Twin-Disc Clutch Co. were shown by Power Transmission Co., High Point, N. C. The units, called the Hydro-Sheave and the Hydro-Wynd, are said to be particularly useful in textile applications where smooth, controlled flow of power is necessary.

The Hydro-Sheave is a hydraulic unit said to have all the advantage of a fluid drive. It is used with motors from ¾ to 40 hp. There is no solid connection between the equipment and the power source.

The Hydro-Wynd is a tension-control device that delivers smooth power by a combination of planetary gears and fluid coupling. Automatic "slip" of the hydraulic coupling reacts with the planetary gears to provide the variable torque needed to maintain constant set tension.

Another new device shown was an experimental motion-control spinning-frame drive that is adjustable while the frame is running. Ordinary drives require stopping of the frame to adjust speeds.

Spray-On Chemical Reduces Static Electricity

A chemical, Statikil, was shown by The J. E. Doyle Co., 220 W. Sixth St., Cleveland 13, Ohio. It is said that if the material is sprayed on a steel twister roll, for example, yarns such as acetate types that pass over the roll will be free from static electricity. The material must be renewed on the roll periodically.

The chemical does not damage leather or synthetic-rubber roll coverings, according to the manufacturer.

AUTOMATIC STRAPPING AND SEALING of finished-goods packages are provided for by compressed-air action.

New Strapping Machine Compresses, Feeds, and Seals Straps

A new strapping machine that moderately compresses a package and simultaneously applies up to three steel straps was an interest-creator at the show. Known as the Model F3 strapping machine, the unit reduces handling required to process cases for shipment and storage. It was shown at the booth of Acme Steel Products Div., Acme Steel Co., 603 Stewart Ave., S.W., Atlanta, Ga.

The machine features a movable platen with controlled compression as well as the ability to secure one, two, or three steel straps with independently controlled tensioning of each strap.

An advantage of the unit is the relative simplicity of installation. The lower platen —just 8 in. above floor level—had a conveyor leading to and from the machine's lower platen at a similar height from the floor. The upper platen is constructed to cover fully the top of a case being compressed. This construction assures a uniformly compressed case during strapping.

The machine applies up to three straps at 15-in. intervals, tensions the straps, seals, and cuts the straps. The unit accommodates cases not larger than 50 in. wide or 53 in. high (uncompressed). The strapping machine may be installed in a floor space 5 x 7 ft. where an overhead clearance of 8½ ft. exists.

The strapping machine is operated by one man at a push-button control board mounted on the unit. The 110-v. 60-cycle control circuit governs, by means of 50-psi. compressed air, five machine operations: raising the platen for case clearance, feeding the steel strap to the required length, lowering the platen to compress the package, tensioning, and finally sealing the strapping.

▶ Interchangeable form bars for its line of payroll and cost-system machines were shown by National Cash Register Co., Main & K Sts., Dayton, Ohio. Different form bars, easily attached to and detached from the basic machines, make possible the arriving at (1) automatic invoicing and accounts receivable, (2) original statement and ledger, (3) automatic social-security report, and (4) heavy-duty industrial payroll.

A PIPE AND BOLT THREADING MACHINE, Model 500, with a range from ⅛- to 2-in. pipe, and ¼- to 2-in. bolts, was exhibited by Ridge Tool Co., Elyria, Ohio. The machine can be mounted on a bench, on legs, or on a wheeled stand. The machine features quick-opening die heads and a concealed cutting-oil system. The motor runs on a.c. or d.c. current, 25- to 60-cycle, light-line service.

Packaged Motors and Controls Increase Slasher Efficiency

A packaged 3,600-rpm. 7½-kw. motor-generator set, plus slasher controls, set up in the same boxed unit with a solid horizontal panel separating the two, was the highlight of the exhibit by Westinghouse Electric Corp., 401 Liberty Ave., Pittsburgh 30, Pa. The drive and control system is operated by push buttons at the slasher.

An 1,800-rpm. rubber-mounted booster unit gives added tension control to beams behind the slasher. Braking is dynamic. The unit has space for a second booster for size-box control.

The control system is set up with a selenium-disk exciter instead of a rotating exciter.

To compensate for shrinkage or stretch, the tension between sections of the slasher can be changed during normal running. The operator turns the size-box tension rheostat until the desired load is indicated on the ammeter.

When doffing the slasher, the operator stops the drive and turns off the beam tension so that he can cut the warp without danger of the beam starting to rotate. At the same time, the "dynamic braking" prevents the yarn in the drying area from pulling the front delivery roll backwards fast enough to create slack.

When the operator stops the slasher

Always Uniform

Thread . . . whether on a seamstress' spool or a mill spindle . . . must conform to high standards . . . inch after inch, mile after mile.

That goes for Victor Mill Starch, too. Mill men know they can depend on its unvarying quality . . . the uniform penetration, strength and smoothness it provides.

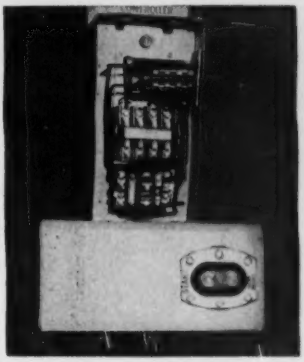
Both Victor and the Keever man who serves you, are known as "The Weaver's Friend" throughout the industry.

TEXTILE SALES DIVISION
1200 WOODSIDE BUILDING
GREENVILLE, SOUTH CAROLINA
Charles C. Switzer, Manager

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO
Corn, wheat and other grain products for industry since 1896

for any reason, he usually leaves the beam tension on. The stalled tension rheostat provides for adjusting the tension in the warp when it is at a standstill.

A slasher with the new controls always returns to the correct running speed and tension when the "fast" push button is pressed.



A MOTOR CONTROL for individual card drives was displayed by Cutler-Hammer, Inc., Milwaukee 1, Wis. The control is compact and is enclosed in a lint-tight case. The start-stop button is mounted on the cover, and the manual reverse switch is on the side of the starter. Only one screw has to be removed to get inside.

AN INDIVIDUAL DRIVE FOR COTTON CARDS was displayed by Allis-Chalmers Mfg. Co., Milwaukee 1, Wis. The drive is a package unit, mounted directly on the card cylinder shaft. This arrangement is said to eliminate undue vibrations to the card and extra strain on the arch. The drive consists of a 1½-hp. 1740-rpm. motor, Falk gear reducer, automatic friction clutch, and V-belt. The drive extends only a few inches beyond the end of the card shaft.

Power-Driven Tool Fastens Objects to Concrete Quickly

Conduit clips, window ties, and any object that is to be held to concrete walls and floors can be fastened with a tool made by Ramset-Fasteners, Inc., 12117 Berea Rd., Cleveland 11, Ohio.

The one-piece tool is loaded easily and can be used with one hand.

A full line of fasteners to be used with the tool were also shown.

THE SHEAVES WITHOUT WEBBING will not collect lint. They're also equipped with self-lubricating bearings.

Sheaves and Binder Bushings Require Little Maintenance

Self-lubricating bronze bearings in plastic harness sheaves are said to eliminate oil on the woven cloth on both dobby and cam looms. Thrust washers of thin steel are used to avoid face friction between sheaves, made by National Plastics, Inc., 2330 McCalla Ave., Knoxville, Tenn. New-type plastic harness sheaves are made without a webbing and the new sheaves will not collect lint.

A bronze binder bushing that is self-lubricated and a steel shim to fit the bushing to eliminate binding and freezing were also shown.

Machine-Stoppage Record For Less Than $50 per Machine

A new dial system that records the reasons machines are stopped, along with the number of stops, was exhibited by P. C. Gault Co., 2 Aberdeen Dr., Greenville, S. C. To record a stoppage, a machine operator flicks a switch on the telephone-like dial at the machine and dials a coded number to a central recording unit. The Gault dial system, which does not indicate how long a machine is stopped, is still in the developmental stages but is designed to sell for less than $50 per machine.

Yarn-Processing Counter Has Five Wheels

The Model ST five-wheel predetermined counter shown by Durant Mfg. Co., 1931 N. Buffum St., Milwaukee 1, Wis., was designed for spinning, drying, pin drafting, warping, beaming, and roving manufacture.

The units are constructed to operate at high speeds and to give long life. Predetermined count may be set for any figure up to 99,999. When the preset count is reached, contact is immediately closed or opened to stop the machine.

Switch capacities are:

Inductive load, 115-v. a.c.—15 amp.
Inductive load, 230-v. a.c.—10 amp.
Noninductive load, 115- to 230-v. a.c.—5 amp.
Noninductive load, 115-v. to 230-v. d.c.—250 w.

The unit has oilless automotive-type bearings and diecasts and positive-locking mechanism of the cam ring to eliminate slippage. Figures are ¼x¼ in. wide.

QUICK PREPARATION for friction-sealing method of baling is obtained by this unit that cuts, inserts seals, and releases in a minimum of time. Shown by Acme Steel Products Div., 603 Stewart St. S.W., Atlanta, Ga.

► **A roving frame drive motor** that insures a smooth start and smooth acceleration to full speed was shown by Allis-Chalmers Mfg. Co., Milwaukee 1, Wis. The motor is designated APQR, which means that it is a special application of the APQ motor. The drive has only one winding but is classified as a dual-torque motor. It has 12 leads and can be connected for low torque for old frames and high torque for new frames.

► **Q groove**, wide-range, adjustable-speed sheaves were announced by American Pulley Co., Philadelphia 29, Pa. The sheaves are recommended for slubber and spinning-frame drives up to 10 hp.

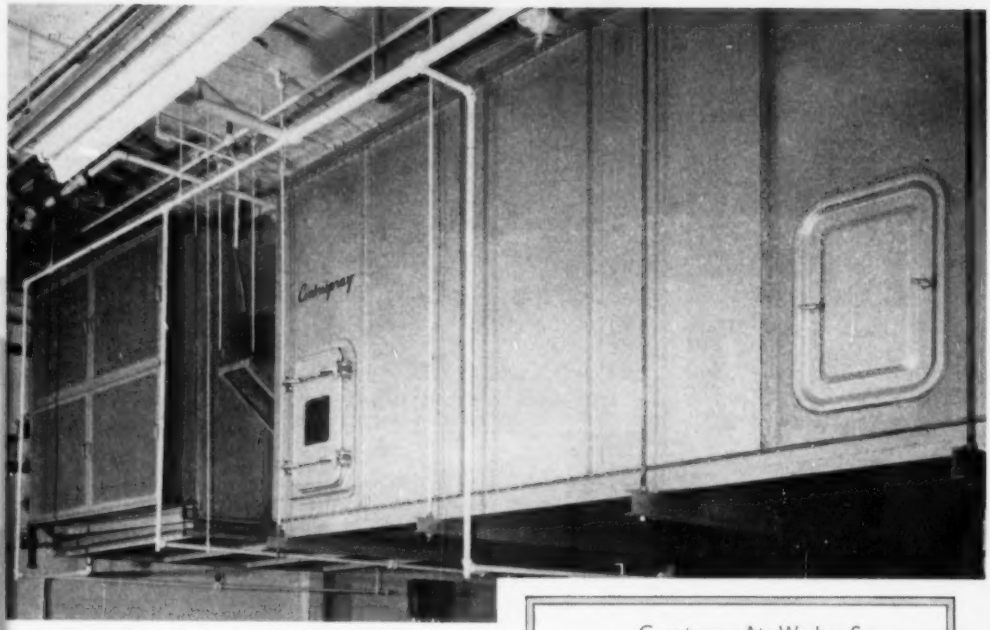
Tycol Shows Tacky Loom Oil And Stainless Oils for Needles

Three new oils, Tycol Amortac 76, Alweave 11, and Alweave 13, were displayed by Tide Water Associated Oil Co., 17 Battery Pl., New York 4, N. Y.

Tycol Amortac 76 is a nondripping tacky oil for loom lubrication. This heavy-bodied oil will not drip or sling from rotating machinery. It is said to be excellent for shafting and chain drives that are hand or automatically lubricated.

Tycol Alweave 11 and Tycol Alweave 13 are light-colored stainless oils for the

Centrispray air conditioning systems



The Bahnson Centrispray System is based on the first really new idea in air washer design in almost fifty years.

By combining time tested and proven components with advanced engineering, Bahnson has developed a system which has been quickly accepted by the Textile Industry.

Many other systems, in outstanding mills, prove that the Centrispray is a new leader in air conditioning for industry. The Centrispray washer is light in weight and can be installed in new or existing mills—often without need for apparatus houses. It is designed to require a minimum of maintenance and to provide a flexibility of operation and control that cannot be equalled with conventional systems. If you want all of the advantages of truly modern air conditioning, investigate the Centrispray Air Washer —for unit or central station systems, with or without refrigeration.

Centrispray Air Washer Systems have recently been selected by the following mills:

Borden Mills, Inc., Kingsport, Tenn.
28 washers, 1,111,200 cfm,
1770 tons refrigeration

Erwin Mills, Inc., Erwin, N. C.
8 washers, 308,000 cfm

Orr Mills, Lyons Division, Synthetics,
Anderson, South Carolina
8 washers, 283,390 cfm,
371 tons refrigeration

P. H. Hanes Knitting Company,
Hanes, North Carolina
6 washers, 240,000 cfm

Statesville Division, The Seminole
Mills, Statesville, North Carolina
10 washers, 186,000 cfm

American and Efird Mills, Inc.,
Whitnel, North Carolina
4 washers, 160,000 cfm

FULL VALUE....
FOR YOUR AIR CONDITIONING DOLLAR

Bahnson Company
AIR CONDITIONING · HUMIDITY CONTROL
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.

lubrication of knitting machinery and other machinery that requires a scourable oil. Tycol Alweave 11 is slightly heavier in body than Tycol Alweave 13. Both oils contain a trace of tacky additive that causes the oil to adhere to knitting needles and to prolong the needle life.

MASONITE COVERS THE WOOD and makes a smooth, hard surface. The lift truck is for transferring loom beams to the loom and for placing them in the loom.

Warper Beam of Wood Has Masonite Veneer

A warper beam said to be lighter than wood was shown by Standard Mill Supply Co., 1064-1080 Main St., Providence 1, R. I.

The wooden barrel and heads are covered with Masonite material that the exhibitor claims will not crack or splinter.

The company also showed a hydraulic lift truck to place warp beams in looms. The truck has four swivel-type wheels. Two of the wheels will lock parallel with the truck for easy rolling but will unlock to become swivel-type wheels so that the warp beam can be placed in position at the loom.

New Cleaning Solutions Save Time and Money

Two new cleaners produced by The Selig Co., Atlanta, Ga., are designed to provide safe, low-cost cleaning of metal parts. Selig Loom Cleaner has a flash-point of 258° F. and is safe to use around motors. The cleaner is sprayed on and then blown off with compressed air. Rust-Off #16 is a rust remover that is painted on the part, allowed to soak for 30 to 40 min., and then flushed off with water.

Varnish and Paint Remover Leaves No Residue

A new product of West Disinfecting Co., Richmond, Va., is a solvent, non-flammable varnish and paint remover. The product is claimed to be a time- and labor-saver because it leaves no gummy residue to clog up sanders.

Doffmeter Indicates Time for Doffing

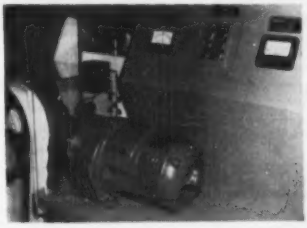
The DM doffmeter, designed for loom application to measure the yardage of cloth woven, and at a predetermined setting to stop the loom, was the highlight of the exhibit of Durant Mfg. Co., 1931 N. Buffum St., Milwaukee 1, Wis. The new four-wheel measuring device has a positive lock on the cam rings for setting and resetting purposes that is manipulated by the thumbnail. A hinged cover, virtually lintproof, provides access to the wheels, which are easily thumb-set.

A light can be provided for the loom to indicate to the operator when the predetermined yardage has been attained.

The unit can also be used on roving, spinning, and twisting frames, in which case the units used are hanks.

Advantages of the new Doffmeter are (1) simplicity of settings, (2) the ability to reset without losing count of what was run before or of the actual yardage, (3) oilless bearings, and (4) the lintproofing of the cover by means of recessed edges.

Size of the unit, including knob and shaft, is 5¾x2⅝x2¼ in. Resets can be either right or left hand.



A MULTIMOTOR SLASHER-DRIVE SYSTEM was featured by the Reliance Electric and Engineering Co., Cleveland 10, Ohio. The system uses packaged adjustable-speed electric drives. The V°S provides controlled stopping and starting and a preset slow speed.

The advantages of the multimotor drive are said to be that it:

1. Provides uniform tension throughout the body of the beam

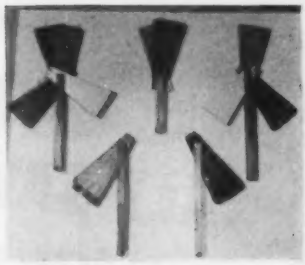
2. Allows more yarn to be wound on a beam

3. Controls the amount of stretch between sections of the slasher

Automatic Ceiling Cleaner Changes Directional Flow Itself

An oscillating device that periodically changes the wind throw of the ceiling cleaner featured by Louden Machinery Co., Fairfield, Iowa, allows the unit automatically to cover both sides of a room or frame area in a mill. The automatic direction-changing blowing unit is designed to eliminate manual blowing down in a cardroom or spinning room.

Equipped with a totally enclosed motor, the new cleaning unit provides continual cleaning of all surfaces within range of the cleaner blast and thus does away with costly hand labor in ceiling cleaning and elimination of lint on and around frames.



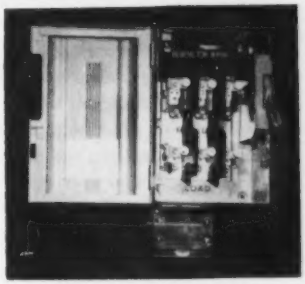
THE WEAVER JUST STICKS A PEG in the flag standard to point out why the loom is flagged.

New Loom Flag Tells The Loomfixer What's Wrong

When a weaver flags a loom with a new loom flag manufactured by G. F. League Mfg. Co., Box 125, Greenville, S. C., a wooden peg is stuck into a hole in the base of the flag so that the loomfixer knows immediately what's wrong with the loom. A list of loom-part breakdowns is printed on the side of the flag, and the weaver puts the peg by the loom part that is causing the trouble.

Another new product shown by the League Co. is a pirn for Fiberglas yarns. A hard-maple bushing is inserted in the pirn to balance the pirn.

A backstay for yielding reeds features a large plate for the adjusting screw in the lay. It is claimed that this plate extends the life of the backstay.



A SPACE-SAVING A.C.-MOTOR-CIRCUIT SAFETY SWITCH was shown by Cutler-Hammer, Inc., Milwaukee 1, Wis. A new contact design is the key to the switch's compactness. The contacts are nonwelding and totally enclosed. The space-saving feature of the switch increases in importance as the rating increases.

Cleaner for Machinery Is Mixed With Water

A concentrated cleaner that is mixed with water was highlighted by Twin-T Laboratories, 309 River St., Greenville, S. C. The cleaner is used to clean machines and machine parts. One part of the solution to 15 parts of water is said to

Make These **4-WAY**

SALT SAVINGS

yours with the help of International Salt Company's Industrial Engineers

1. SAVINGS ON STORAGE by engineering the most efficient and compact salt storage system to fit your situation.

2. SAVINGS IN LABOR by reducing effort and supervision involved in salt or brine handling.

3. SAVINGS ON WASTE through accurate salt measurement and ending of spillage and spoilage.

4. SAVINGS IN USE. Research and field work with hundreds of industries in many fields equip International to show you how best to use salt in product processing—and for product improvement, too.

No matter what type of salt your company uses, you will find it profitable to consult with International Salt Company's Industrial Division.

As part of International's service to industry, this experienced organization will acquaint you with latest advances in salt use in your field. And can advise you on all aspects of salt storage and handling, brine making, and salt and brine uses.

Here you'll find four ways to save money—and very probably, *important* money.

Qualified on all Counts

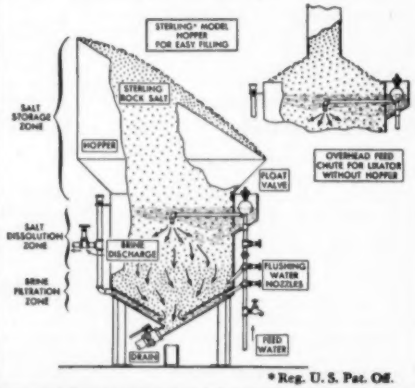
International Salt Company's Industrial Division is endowed with the experience of one of America's largest salt producers. This company produces all types of salt and operates from strategically located mines and refineries.

As supplier to all industry, it is constantly in touch with salt developments in all fields. Many such developments, in fact, have been pioneered by International Salt Company.

LIXATOR*—A NOTABLE EXAMPLE

The Lixator is one of International's outstanding advances in salt technology. Utilizing Sterling Rock Salt, the Lixate principle of self-filtration, invented and developed exclusively by the International Salt Company, provides a steady flow of pure, clean, fully saturated brine.

No handling or attention is required beyond the hopper-loading stage—gravity does all the work. The Lixate Process is adaptable to almost numberless industrial requirements, large or small.



*Reg. U. S. Pat. Off.

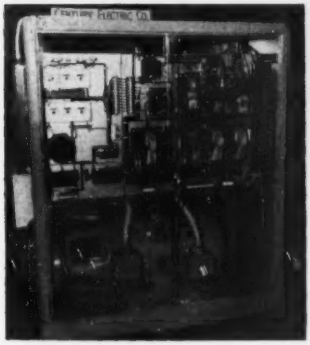
INTERNATIONAL SALT COMPANY, INC., Scranton, Pa.

SALES OFFICES: Atlanta, Ga. • New Orleans, La. • Boston, Mass. • St. Louis, Mo. • Newark, N. J. Buffalo, N. Y. • New York, N. Y. • Cincinnati, O. • Philadelphia, Pa. • Pittsburgh, Pa. • Richmond, Va.
ENGINEERING OFFICES: Atlanta, Ga. • Chicago, Ill. • Buffalo, N. Y.

make an efficient cleaning agent to remove dirt, grease, and size sheddings.

The cleaner is nonflammable, nonhazardous, and nonirritating to the user. It can be used either as a spray or for vat cleaning.

A heddle and reed cleaner to remove warp sizing and other residue was also shown by the company. This cleaner is also nonflammable and nonhazardous.



A SELECTIVE SPEED CONTROL that operates from alternating current was unveiled by the Century Electric Co., St. Louis 3, Mo. The control is used in conjunction with the Century drive motor. The speed adjustment is 8 to 1, but 32 to 1 or more can be furnished. A multimotor drive can be regulated from the single dial of the speed selector, and the motors need not be of the same horsepower. The system provides an almost stepless speed adjustment and low starting speed. Jogging, inching, jog reverse, continuous reverse, dynamic braking, and regenerative braking are features of the control.

▶ **The Merrow butted-seam sewing head** was part of the equipment shown on the piece-end sewing machines featured by Dinsmore Mfg. Co. The butted-seam sewing head is manufactured by Merrow Machine Co., Hartford, Conn.

▶ **Wolmanized chemical- and pressure-treated lumber** for textile-mill, dyehouse, and finishing plant use was shown by American Lumber & Treating Co., 332 S. Michigan Ave., Chicago 4, Ill. The treatment stops rot, kills termites, prevents mold, and stops leaching. It does not stain darkly and can be painted over when a priming coat of aluminum is used.

▶ **A seal-feed strapping machine,** called the A-2, attached to a stationary but maneuverable mount, was featured by Signode Steel Strapping Co., 2600 North Western Ave., Chicago 47, Ill. The strapping unit is lightweight yet tensions, cuts, and seals in three motions. It sells for $85. The mount costs $65 extra. For wider ½- and ¾-in. strapping operations, the Model SFC seal-feed strapping unit was shown. It weighs 8 lb. loaded with 50 seals.

MANEUVERABILITY IN CRAMPED AREAS in finding, handling, and storing heavy bales or cartons made this fork truck and attachment a materials-handling highlight of the show.

New Lift-Truck Attachments Speed Materials Handling

Three lift-truck attachments that (1) simplify the handling of cotton bales and cartoned gray or finished goods in narrow-aisle warehouses or shipping areas, (2) make automatic the attaching, lifting, carrying, and detaching of 55-gal. drums, and (3) allow two cotton bales to be lifted, carried, and rotated in a 360° circle, if needed, were shown by Clark Equipment Co., Industrial Truck Div., Battle Creek, Mich.

1—Car-Loader Break-Out Device

The electric car-loader fork-lift-truck attachment was being used as an attachment on a 3,000-lb. electric lift truck for handling cotton bales in narrow areas.

The device is attached to a 96-in. lift upright and can swing around a complete half circle so that bales can be grabbed at a 90° angle from the truck position and lifted out of storage in a warehouse or, conversely, can be inserted at 90° between two bales in a tight fit from a 36-in. aisle.

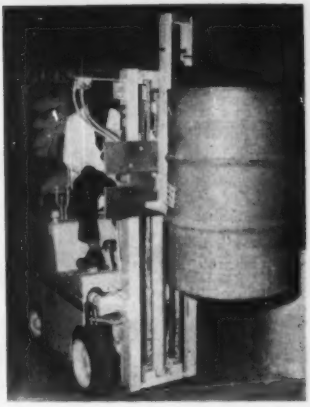
The attachment can be applied to fork-lift trucks of any capacity. Maximum arm spread is 62 in. (The standard cotton bale is about 50 in. at its widest width.) Arms are also to be provided with rubber pads for use in cases where cartons of goods are to be handled by the attachment.

2—Lift-O-Matic Drum-Handling

Fast, automatic attaching, carrying, and detaching of drums can be obtained by any truck with the Clark drum-handling device that was displayed and used on a gasoline-powered lift truck. No additional operator controls are needed because pick-up and release is automatically effected by raising and lowering the truck lift cylinder when it is pressed against the drum.

The attachment, adjustable to any size drum, is 41 in. high, 14 in. wide at the bottom and 7 in. at the top, weighs 75 lb., extends 10 in. from the carriage, and has a recommended capacity of 1,000 lb.

ON END OR ON SIDES — it makes no difference which way you want your cotton bales placed when your fork lift truck has a 360°-angle rotating device like this.



WITHOUT PALLETS this attachment handles any drum automatically, tiers easily at maximum work height, and places exactly without space losses because of projections.

3—Handling Two Bales at a Time

Two cotton bales can be handled at one time by a lift-truck rotating attachment that doubles bale-handling speed. Equipped with wide-spread clamps on a 2,000-lb. gasoline Yardlift 20 truck with pneumatic tires, the device was demonstrated grabbing, lifting, and turning the bales in a 360° circle.

Electric Counters Give Accurate Production Count

Electric Productimeters built to give accurate counts of units produced at high, low, and intermediate speeds, as on an Abbott winder, for example, were shown by Durant Mfg. Co., 1931 N. Buffum St., Milwaukee 1, Wis. The counters are made with a diecast case, stainless-steel shafting, oilless bearings, hard-steel working parts, and aluminum cover plates. Number wheels are high in the window for maximum visibility at all angles.

The electric counters are being used

BRYTEX FIRMEL
A partially polymerized resin of large molecular structure. Produces a crisp hand and a high lustre glaze. Permanent when used with catalyst and cured. Dissolves readily, stores indefinitely, extremely economical.
BRYTEX SPECIAL FINISHES
BRYTEX GUM 813G
Recommended for Sanforized finishes. A finish and weighter that will not become tacky or discolor at high temperatures. May be used with oils, softeners or starches. Retains fabric brilliance.
BRYTEX RESIN DJ
UF condensate for fabric stabilization, crush resistance, and permanent glaze. Advantages: Rapid solubility at low temperatures, exceptional storage life, permanency and quality of finishes obtainable at minimum cost.
Brytex PRODUCTS
generous free samples
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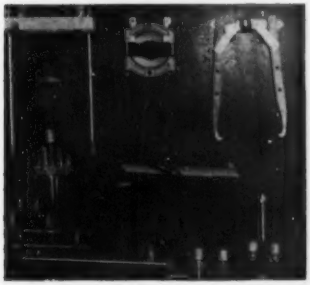
N. Quincy 71, Mass.
Box 2301, Spartanburg, S. C.
Please send free sample for plant test of—
RESIN DJ
FIRMEL
813G GUM
NAME
POSITION
Tear out-attach to your plant's letterhead

for counting the number of full quills that go by a fixed point on an Abbott winder. This system saves weighing up boxes of quills after they have been wound.

IT'S THEIR BEST textile motor yet, according to General Electric Co., 1 River Rd., Schenectady 5, N. Y. It's been tested, and it's now ready.

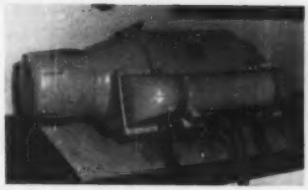


HYDRAULIC PULLERS rated at 17½ tons and 30 tons were shown by Carolina Bearings Div., Tennessee Bearings, Inc., Greensboro, N. C. The OTC Power-Twin units convert OTC pulling systems to hydraulic push-pull or lift. The Power Twin with its center hole and the proper attachment will remove and install bearings, bearing cups and races, gears and pinions, shafts, studs and pins, wheels and pulleys, bushings, collars and couplings. The remote-control feature allows operation at a safe distance.

Cotton-Classing Colorimeter Makes Classing More Scientific

The new Nickerson-Hunter Colorimeter shown by Macbeth Corp., Newburgh, N. Y., is designed to compare cotton samples with standards under unchanging conditions. Classing of cotton is speeded up. The cotton to be classed is simply inserted into the Colorimeter and subjected to photoelectric reflectance measurement.

► **Drawn-steel 4-in.-dia. wheelcasters** with a cadmium finish, ball-bearing hubs, thread guards if desired, and an operating load of 2,000 lb. per wheel were shown by Faultless Caster Corp., 1521 N. Garvin St., Evansville, Ind.



THIS 20-HP. MOTOR, designed specially for the Saco-Lowell Gwaltney frame, was displayed by Reliance Electric & Engineering Co., Cleveland 10, Ohio. The motor comes in two models, one cooled by air, the other by water. The size of the 20-hp. motor compares favorably with the size of the average 7½-hp. motor. The motor drives the cylinder through a V-belt from its mounting under the frame near the foot end. The mounting is done with pivot points and a jackscrew, and one person can move it to adjust tension or change V-belts.

One feature of the air-cooled motor is a high-velocity fan that evenly distributes the exhaust air over the spinning frame.

The water-cooled motor has an air-to-water heat-exchanger unit that can be removed in 3 min. without stopping the motor. A thermoswitch protects the motor in case of water failure or sustained overwork.

THIS DRAWING FRAME and rolls have been rebuilt, and large coilers are used.

Conversions Shown for Drawing Frames, Coilers, Spindles

The conversion of 10-in. and 12-in. comber, card, and drawing-frame coilers to 14-in. and 15-in. size was shown by Gossett Machine Works, P. O. Box 979, Gastonia, N. C. It is said that this work can be done at a low cost and that it will result in increased yarn production.

A drawing frame that was rebuilt by Gossett technicians was also featured. Old frames that have four rolls of six ends each can be changed to a type that has five rolls with eight ends.

The fourth and fifth rolls on the frame are the RGM metallic rolls that are said to be so hard that they cannot be cut with a file. The roll setup is of graduated-pitch flutes. The top rolls are equipped with roller-bearing shells.

New stands, calender rolls, trains of spiral gears and studs, drafting gears and studs are among other improvements of the rebuilt frame.

Another feature of the exhibitor is a spindle that is rebuilt. Whorls for tape-driven spindles are used to replace the whorls for band-driven spindles.

EXECUTIVE'S CALL BOX has telephones at the other end and is operated from this end by pushing a single button—no dialing, no press-to-talk switch.

New Call Box Is Timesaver for Executives

"Executive Station," a call box for busy executives, was shown by P. C. Gault Co., 2 Aberdeen Dr., Greenville, S. C. The unit, developed by Kellogg Switchboard Supply Co., is designed to work with a Select-O-Phone system to enable an executive to be in constant touch with 20 stations. The beauty of the thing is that there is no dialing and no pressing to talk. To call any station, just press a button. To receive a call, just hit the answer key.

► **Electric door and gate operators** were shown by Barber-Colman Co., Rockford, Ill. The operators can be actuated by switches or by radio. The radio control, which costs less than most people would guess, can open and close doors and gates, turn on lights, operate signals, and do many other things from a moving vehicle.

► **A Bantamweight** four-wheel platform hand truck with two rigid and two swivel double-ball-race pressed-steel casters was shown by The Fairbanks Co., 393 Lafayette St., New York 3, N. Y. The rigid casters are placed closer to the center of the truck than the swivel casters so that the rigid casters bear 60% of the load weight.

Prototypes of a new line of 8-in. single- and double-ball-race casters, with several different types of hubs and wheels, were also featured in the booth.

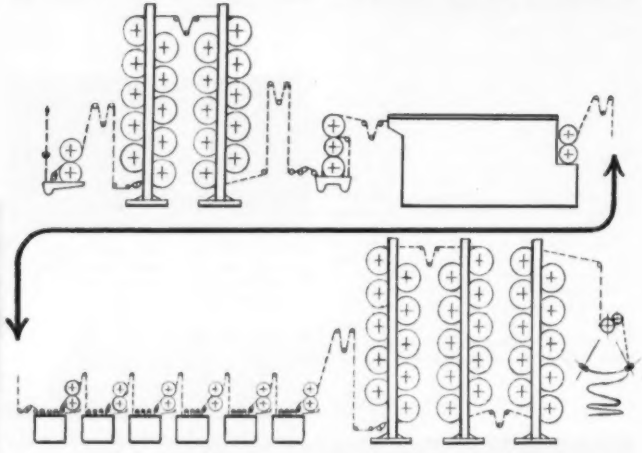
► **An axial air-gap motor,** a flange-mounted motor (built on a frame) that can be used with the shaft in either a horizontal or vertical position, was a feature of the display of Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago 5, Ill. To afford protective features on both positions, the

(*Continued on page 220*)

(*Advertisement*)

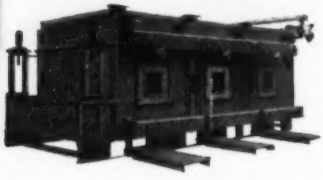
Cook PA STEAM-PAD DYE RANGE

For All Fabrics and Warp Dyeing



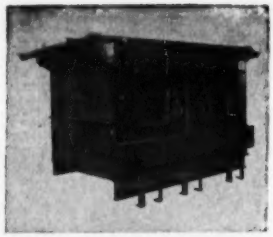
We now have in operation ranges of from 50" to 110" face on cotton, rayon, acetates, corduroys, wool blends, etc. From our own shops we can supply modified or complete ranges to fit your requirements.

COOK Internal Tension Control (Patent Pending) makes possible successful operation of any size Ager

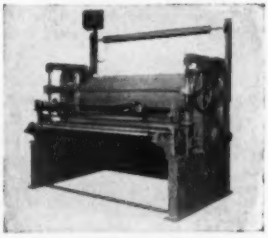


Our latest addition to the COOK Steam-Pad Dye Range is an Ager (5623–1) with *automatic internal tension control* (Pat. Pend.) which permits processing of even fine rayons without damage. This machine has an entrance seal which really seals, a steam-heated ceiling which really eliminates drips and provides uniformity of steam conditions. Many millions of yards of broadcloths, corduroys, work clothes, wide sheeting, rayon dress goods and even wool blankets have been processed through COOK Steamers. From the very beginning of the Steam-Pad Dyeing Process, COOK has played an important role in its successful development. Individually or as a complete range the representative machines shown here can be relied upon to produce a maximum amount of goods per dollar invested.

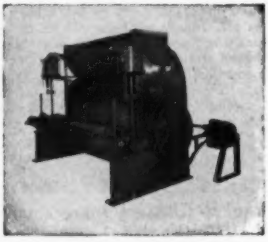
All COOK machinery is fabricated in our own shops allowing design flexibility *without* premium cost. Stainless steel fabrication eliminates broken castings and factory-made repair parts. All machines are guaranteed to perform as specified. Your request for information will receive prompt attention.



COOK Continuous Desizing Ager (4860-1) provides a uniformly saturated atmosphere and handles the material without wrinkling or excessive tension. Smooth flow with COOK Automatic Tension Control (Pat. Pend.). Entrance and exit steam seals which really do seal. Made in floor or ceiling type. Also available as combination Desizing and Dyeing Steamer.



2 Roll Padder (5602-2) Sturdy box-type frame, fool-proof pressure control and reliability make this padder increasingly popular where absolutely level padding is required. The lever-set pressure control is greatly improved to eliminate any binding and includes a new design roll separator. In 5, 10, or 15-ton capacity and any desired width.



3 Roll Padder (2947-1) Pneumatic pressure control with latest air cylinder design provides uniform and accurate pressure on each side. Single or dual control panel. Nip roll designs engineered to eliminate deflection. Rolls mounted in self-aligning spherical bearings. In 5, 10, or 15-ton capacity with infinitely adjustable pressures. Any desired combination of stainless steel and rubber covered rolls.

COOK-P & N MACHINE CO., INC., 365 Dorchester Ave., Boston 27, Mass.

Pointers FOR SUPERVISORS

What's Being Done About SUPERVISORY TRAINING

► Supervisory training is an important part of your personnel relations. Through this type of training the problems that arise between employer and employee can be studied constructively so that they may be dealt with in a manner satisfactory to both.

By MACON P. MILLER
Director of Industrial & Public Relations, Fieldcrest Mills

Where do we stand on supervisory training?

The fact is that we've been galloping about in several directions, like a halfback zigzagging laterally over the field, and we haven't advanced very far forward. We've tried a lot of subjects—from public speaking to leadership. We've tried a lot of techniques—from lectures to role playing. But we still have little clear-cut evidence as to the effectiveness of our subjects or of our techniques. There has been very little proof that our training has actually improved the job performance of supervisors subjected to the training.

In the absence of conclusive data concerning the effectiveness of supervisory training, we have no alternative but to take a good look at our training goals and to try to make an intelligent choice of techniques for achieving these goals.

The chief purpose of supervisory training is to improve the job performance of supervisors. If we accept this as our goal our training must then be geared to produce favorable changes in job performance. It should deal with subjects that are pertinent to the job, and the training method should be such as to enable the supervisor to translate his training into behavior on the job.

At this point it would be well to distinguish between training that is intended to give information and training that is concerned with the art of supervision. In the first instance the foremen learn about manufacturing processes, machinery developments, materials handling, quality and waste standards, labor utilization, rate setting, personnel policies and procedures, union contract provisions, labor relations laws, the competitive position of the company, etc. These subjects comprise the knowledge the foreman must have at his finger tips. They cannot be neglected in a training program.

In the application of this knowledge to the job, the foreman is inevitably faced with human relations problems. When a rate is changed or new machinery installed, the foreman has to deal not only with figures and machinery but also with his workers. Personnel procedures or the union contract may outline what the foreman may or may not do with the workers in certain situations. But the actual situations are often unique; they include some factors not covered specifically in the procedures or contract provisions. In addition, the procedures are not intended to serve as a complete guide for conducting face-to-face dealings with employees or securing employee cooperation.

It is in this sense that successful supervision is an art.

Some supervisors are skilled in this art. For those who are not, the question arises: Can they be taught it? There have been efforts to teach it through human relations courses that seek to get at the principles of human behavior and human motivation. Experience has taught us, however, that the mere process of giving supervisors information on this topic carries no assurance that the supervisor will practice what is preached at him.

The fault does not lie with the supervisor. Probably the chief reason for failure is the underestimation of the difficulties involved in putting human relations training into action on the job.

In some cases, the use of good human relations principles necessitates a change in a foreman's attitudes, habits, or even traits of temperament. These changes can't be made easily.

Let's cite some examples.

It has been reasonably well established that employees are more willing to accept changes if their opinions are secured beforehand and taken into account. This is the principle of participation. But a foreman who rarely consults with his employees could not be expected to run out and consult with them simply as the result of being told it's a good idea. First of all, this practice may be opposed to his customary, habitual way of running his department. Second, it requires an attitude toward employees that he may not have. Third, he may not have the temperament for it. A foreman who is largely self-sufficient and who runs his own show is likely to find that seeking the advice of his employees runs against the grain.

Similarly, the foreman who habitually does all the detail work finds it difficult to delegate some of this work to his assistants. The foreman who customarily reserves his contacts with employees to the pointing out of errors or poor job performance cannot readily swing over to broader discussions with employees on how they stand and how well they are doing. The foreman who habitually makes off-the-cuff decisions cannot easily respond to the advice: "Get all the facts." The foreman who has never made it a practice to greet employees by name may find it awkward and embarrassing to do so.

The trouble is that habit, attitude, and temperament may stand in the way. These things must change before there is a genuine change in behavior on the job.

The old maxim that we learn by experience gives us some clue as to what can be done. The key to the problem is this: We're not necessarily stuck with what we now do from

(Continued on page 329)

Alemite "Friction Fighters" WENT TO WORK HERE!

ADDED: 30 Minutes Operating Time Daily

ELIMINATED: Bearing Repairs and Oiling Hazards

SAVED: A Total of $2000 Every Year

It Happened in Harrisburg, in a steel plant* where a mammoth traveling crane was required to carry 25 ton loads, make fast stops, quick returns and was under constant threat of friction's wear and tear. To protect it, a variety of lubrication methods were tried and adopted. All proved costly . . . dangerous . . . ineffective.

Then, a trained Alemite "Friction Fighting" specialist was called in to work with the plant engineers. After careful study, an Alemite Mechanized Lubrication System was installed and immediately began to effect savings four ways: 1. In adding 30 minutes additional productive use of the crane daily—valued in cash at $9.00 a day and over $2000.00 per year. 2. Savings of 60% in the amount of grease used. 3. Saving in bearing repairs—none required since the Alemite System was installed. 4. Oiling hazard—completely removed.

You Can Get Similar Results! No matter what size or type of plant you operate, an Alemite Lubrication Engineer can show you dozens of ways of making worthwhile savings through more efficient handling of petroleum products. These are facts which you can readily confirm in your own time studies. The Alemite man will cooperate fully with your plant engineers in setting up a test. Contact your local Alemite Industrial Distributor, or mail coupon below—today!

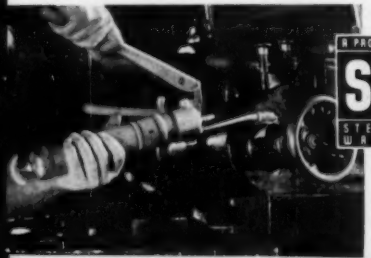
*Name on request

ALEMITE

MEANS EVERYTHING FOR LUBRICATION

1. Methods 2. Lubricants 3. Equipment

Combining strength with light weight, Alemite hand guns assure powerful, volume delivery of lubricant—with less work, in less time!



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TEXTILE Equipment NEWS

Knitting Speed Increased 25% On "Reading 100" F.-F. Machines

A marked increase in knitting speed of the new "Reading 100" 60-gauge full-fashioned machine developed by Textile Machine Works, Reading, Pa., has been obtained by means of new design features in about 600 parts on the machine, the company made known recently. The higher-speed operation running to 100 courses a minute is said also to be adaptable to other-gauge machines made by the firm.

Twenty of the leading improvements in the components and motions of the machine are as follows:

(1) Redesigned cam levers and cam motions to give higher machine speed

(2) Easier checking of needle-bar positions

(3) Solid gauges provided for checking cam settings

(4) Improved balancing-cam motion to secure uniform turnover of the machine

(5) Oscillating shaft bearings provided with porous bronze bushings to give one to four weeks' continuous operation without oiling

(6) Redesigned sinkers and dividers, with a shorter new-shaped sinker nose

(7) A newly developed catch-bar safety that prevents damage to cock-box housings, jacks, jack beds, sinker heads, and verge plates

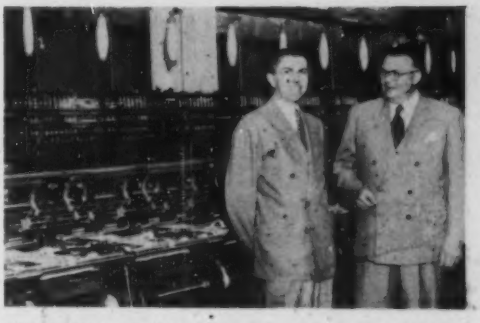
(8) A speed selector controlled by a pattern chain for increased range of operations

(9) Needles with shorter and new-shaped beard

(10) An extended presser edge developed in conjunction with the new motion

(11) Needle-bar rocker arm provided with flat springs to secure needle-bar rocker arm in laid-in or laid-out position at highest speed, without adding spring tension to the needle-bar action

(12) Split taper-sleeve handwheel-shaft pinion and coupling



100 COURSES A MINUTE is the speed at which the new TMW full-fashioned knitting machine will operate. Harold Smith (left) of Liberty Hosiery Co. and E. A. Shoemaker, sales manager of Textile Machine Works, discuss the possibilities.

(13) Knock-down gallows designed to ship a machine in two parts without dismantling gallows completely

(14) Improved knock-off-bar cam-lever arrangement

(15) Center bed redesigned for better heat radiation

(16) Heavier front catch-bar and knock-off-bar shafts to reduce torsion and flexing at higher speeds

(17) Three reinforced selvage rockers to assure quieter rocking motion

(18) Splash guards and guides on the welt and main snappers

(19) A perforated carrier

(20) Tapered roller bearings in the coulier rollers

Inclined Roll Stands Highlight Whitin G10D Roving Frame

A new Superdraft roving frame for the processing of worsted, synthetic, and blended fibers in lengths from 2 to 7 in. has been developed by Whitin Machine Works, Whitinsville, Mass. It has been named the Model G10D Superdraft frame.

There are several important features of the new frame. One of these is the inclined (30° angle to the roller beam) roll stands. This arrangement allows for (1) the easier cleaning of rolls, cradles, saddles, and aprons of the drafting assembly and (2) closer twisting up to the nip of the front rolls of the roving in process.

The inclined roll stand stands higher above the roller beam than the roll stand of previous models of frames. The center of the bottom front roll is 6 in. above the roller beam.

Drafting Components

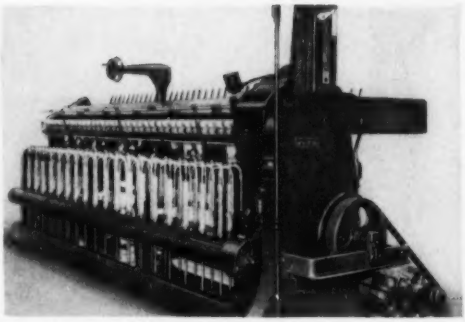
The drafting zone is divided into two fields. Over-all back-to-front roll spread extends up to 14 in. Bottom-roll diameters, from back to front, are 1¼, 1¼, 1, and 2 in. Top-roll diameters, from back to front, are 1¾, 1¾, 1, and 2¼ in. Top rolls are Climax ball-bearing synthetic-covered rolls. All four lines of bottom rolls are equipped with antifriction bearings.

Elimination of dead weighting of rolls has been accomplished by the use of a new type of springs that are guaranteed to not vary in total pressure more than "within

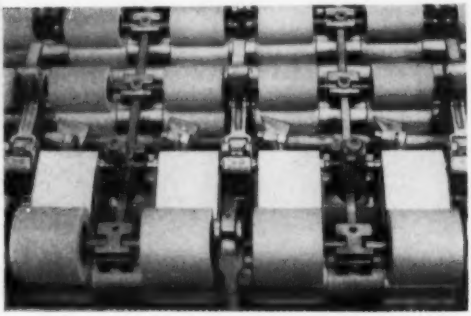
close limits." Exact weighting requirements are maintained by a tension-nut adjustment at the base of the spring.

By means of the saddle, a lever, and fulcrum (easily adjustable), the distribution of weight between the second and third lines of rolls can be varied to mill and fiber requirements.

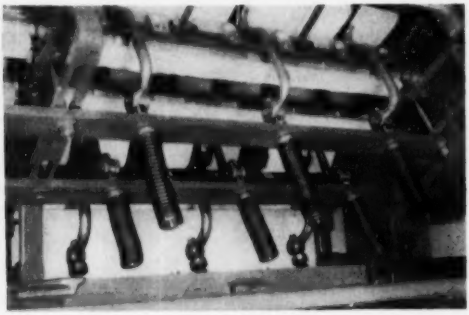
Other innovations on the new frame include a variable-speed lifter-roll drive for passing the sliver from the cans up to the drafting area, a jog switch that allows the flyers to be turned a partial turn only to facilitate piecing up or doffing, an electrically operated shipper switch, easily reached hand wheels for the rack wind-back and for lifting the bottom cone, a limit switch that prevents the traverse from overrunning the bobbin at either top or bottom, an 8-hr. back-trumpet traverse-motion cycle, a full-bobbin knock-off switch, a doffing rack for flyers, and one-shot lubrication.



IMPROVED ROVING FRAME for long-staple processing has high, inclined roll stands, a new spring system of weight adjustment on the top rolls, and antifriction-bearing bottom rolls.



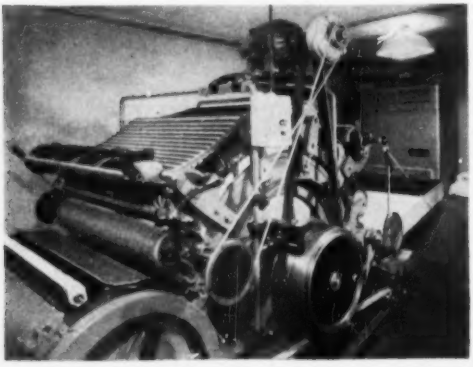
FIBER LENGTHS from 2 to 7 in. are easily handled in the drafting area of the G10D frame. Diameter of the front rolls, top and bottom, are 2½ and 2 in. respectively. Bottom rolls have antifriction bearings.



TOP-ROLL PRESSURES are easily set and adjusted by a new type of spring that does not vary in pressure. The tension nut at the base of each spring serves to regulate the weight as required.

"Overhead" V-Belt Drive Eases Starting up of Cards

A new type of card drive has been developed at the cotton-spinning laboratory of the University of Tennessee at Knoxville, in cooperation with Browning Belting & Supply Co., that includes a "Hydro-Sheave" drive manufactured by Twin Disc Clutch Co. of Racine, Wis.



COMBINATION of 1½-hp. motor, twin-disc sheaves, and matched V-belts makes startups on this card very smooth and simple.

A 1¼-hp. 1,200-rpm, normal-torque ball-bearing motor is mounted on a bracket installed on top of the card. The motor shaft is extended over the cylinder pulleys through the Hydro-Sheave and fitted with matched V-belts to drive the card cylinder. The laboratory plans to replace the regular drive and loose pulleys on the card with a V-belt sheave that is expected to give better driving efficiency and save space widthwise.

When the speed of the motor approaches 600 rpm., the twin-disc sheave begins to operate, and the card cylinder starts to revolve slowly and increases in speed until the cylinder reaches the full operating speed of 165 rpm. This procedure requires less than a minute and allows time for the cylinder to be stripped as it is revolving slowly.

The cylinder and doffer are both stripped from the high-speed single-groove V-belt sheave located on the outside of the twin-disc hydraulic card drive.

The operating efficiency of this type card drive is considered superior to other types, laboratory officials report. Vibration of the motor mounted on the card has not produced any interference; the stationary mounting has met this problem. Other advantages are the saving of space and ease of operation.

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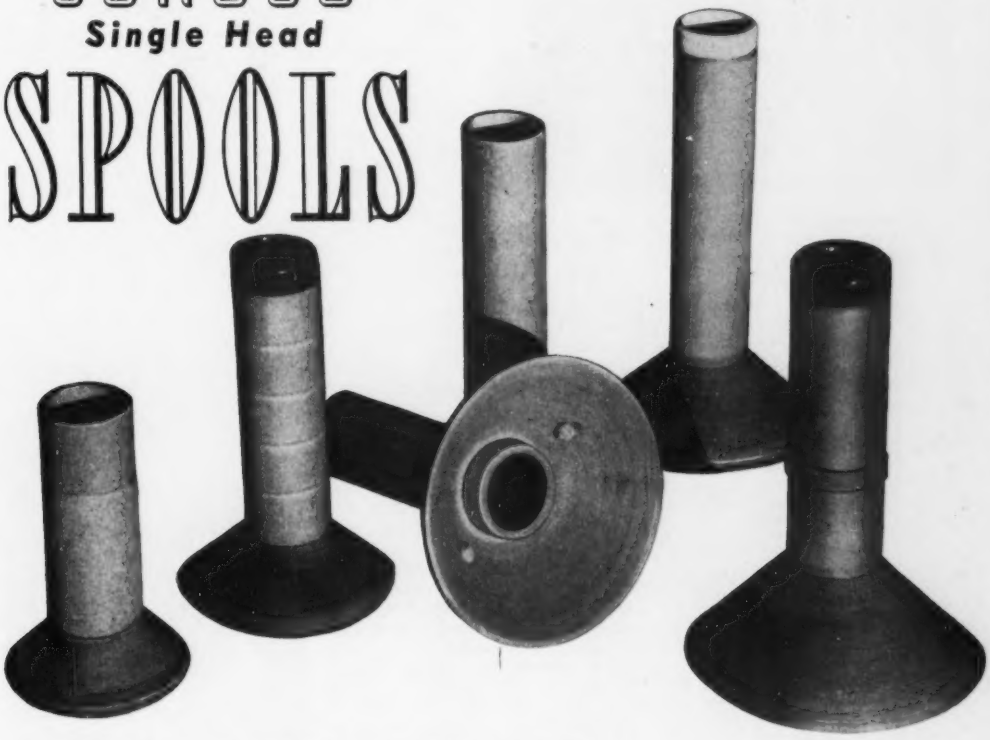

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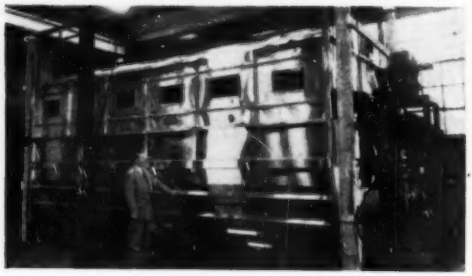
Full-Width Dyeing in the Piece for Cotton Carpeting



HEAVY COTTON CARPETINGS from 6 to 19 ft. wide in the piece can be dyed in a machine like this. Up to 25 tons of water each cycle are required for the large units.

A new line of "Tru-Shade" dyeing machines, designed for the dyeing of cotton-rug and carpet fabrics, has been developed by Rodney Hunt Machine Co., Orange, Mass. These machines have been tested in the field and are reportedly proving highly successful for the dyeing of wide cotton-rug fabrics up to 19 ft. wide in the piece.

Machines range from 6 to 20 ft. in width. Tubs of 14 ft. or over are supported in the center with a structural steel cradle. The stainless-steel tub construction features heavily ribbed sides and the patented "Curve-of-Strength" front, which, it is reported, has proved more than adequate to support the great weight of water necessary in these machines.

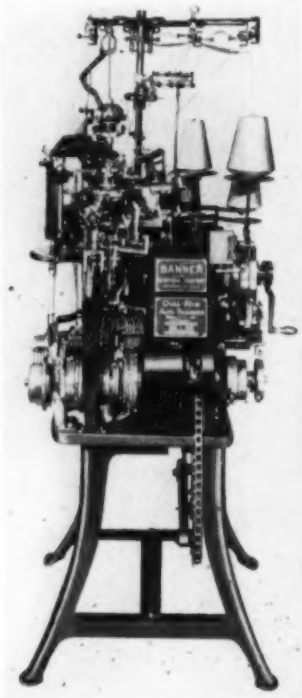
In a 20-ft. machine, for example, over 6,000 gal. of water are used, with a total weight of about 25 tons.

The dye kettles also have patented pipe-body reels that easily support the heavy carpetings.

A variety of spreading and centering devices are being supplied to meet individual requirements. Adjustable front-to-back partitions allow several different widths of fabric to be dyed in the same machine. This arrangement eliminates the necessity of buying several machines to accommodate different widths.

Although direct colors are chiefly employed for the dyeing of cotton-rug fabrics in these machines, it is reported that some successful work has been done on vat colors. It would appear, however, company officials say, that further experimental work is necessary before vat-color applications can be called "a complete success."

New Rib-Top Anklet Machine Eliminates Hand Transfers



PRODUCTION RATE of 5 to 5½ doz. pairs of genuine rib-top anklets per 8-hr shift is possible on this new knitting machine. Rib tops are automatically transferred to the boot.

A completely automatic nonstop rib-top anklet machine, called the Dial Rib ARA-400, has been perfected and mill-tested by Hemphill Co., Pawtucket, R. I. The machine has been successful to the point where hand transfers by specialized help are no longer necessary during the manufacture of rib-top hose.

The ARA-400 can produce anklets in sizes from 4 to 12, on a 3-in. cylinder, employing various numbers of cylinder cuts. The machine knits complete anklets with genuine rib tops automatically transferred to the boot at the rate of 5 to 5½ doz. pairs per 8-hr. shift. This production is made possible through the smooth operation of a single conventional cylinder in conjunction with a trouble-free dial equipped with radially disposed latch needles.

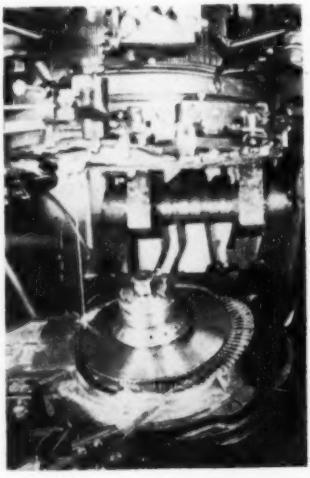
Upon completion of the rib top, the dial automatically drops out of action and so allows the remainder of the anklet to be knit in the cylinder, equipped with regular latch needles.

The single-cylinder construction results in a greatly reduced number of parts, so that the initial and maintenance costs remain at a very attractive level. Simplicity of design and construction are also said to make the mechanic's task an easier one. All parts requiring occasional adjustment are readily accessible.

The ARA-400 is available, with a standard 3-in. cylinder, in either 48 or 54 gauge.

Also available are picot edge; multiple-horizontal stripes in top, foot, or in combination; high splice and double sole; reinforced heel and toe or tip, heel, and toe; needle stop motion; and loading-up stop-motion attachments.

The machine is capable of knitting a large assortment of yarns—synthetic, mixtures, and regular types.



STANDARD 3-IN. CYLINDER is available in either 48 or 54 gauge. Single cylinder with regular latch needles works smoothly in conjunction with the dial that is equipped with radially disposed latch needles.

Controlled Temper

Superior tempering, a special steel formula and rigid scientific controls — automatic and electronic — produce exactly the right combination of hardness and flexibility in every Textile Spring-Beard Needle. Every dimension — length, width, thickness, taper — is carefully calculated in direct relation to the resiliency of the steel and the job the needle must do.

Controlled temper is another of the many advantages obtained through Textile's quality controls. You can see the difference in better fabrics, increased profits.

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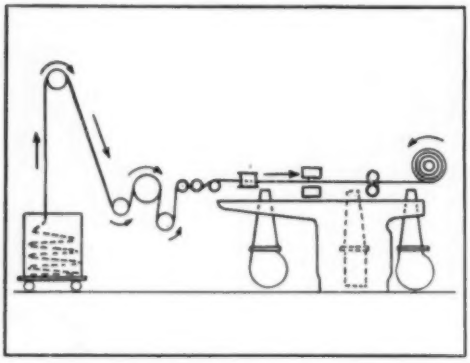
SPRING-BEARD NEEDLES

For Full-Fashioned Knitting
For Tricot Knitting

All-Purpose Calender for Circular-Knit Finishing



SPEED, RELAXATION, AND STRAIGHTNESS of circular-knit fabrics are regulated on the "Tube-Tex" tensionless calender by new attachments adjustable by the turn of a handwheel.

Auxiliary attachments for the "Tube-Tex" tensionless calender that enable circular-knitting mills to use the machine as a regular calender, as a straight-stripe finisher, as a shrinkage-control machine, or as a sweater-framing and -steaming unit have been designed and made available by Tubular Textile Machinery Corp., 33-61 54th St., Woodside, L. I., N. Y.

The machine is versatile and allows for easy conversion from one style of fabric to another. Micro controls enable the operator to turn a handwheel to regulate the speed of the machine, the amount of relaxation in the fabric, and the straightness of stripe or fabric cross line.

The machine employs the company's patented dual-propeller spreader. This mechanism conveys the fabric forward while it is being steamed and calendered, whereas conventional spreading equipment may induce drag and unnecessary lengthwise distortions. This mechanism is instantly adjustable in widths for circular fabrics from 7 in. to any spread width desired.

The machine uses controlled steam from jets aimed at both the top and bottom layers of the fabric. This arrangement provides for uniform widths and level moisture regain.

Another feature of the calender is the adjustable pressure mechanism. By flipping a lever, the operator can instantly adjust calender pressure so as to produce a fabric with a firm, flat hand or with a full, lofty hand. The feature of eliminating the press is particularly useful in the processing of napped or similar heavy-weight fabrics.

No Pressing of Raised Fabrics

The new calender has proved of particular value to manufacturers of brushed or napped fabrics who have shied away from the spreading, steaming, and pressing of their cloth for fear of losing the nap. By spreading and steaming this type of cloth without mangling, the loftiness of fabric is retained; substantial savings result in the cutting operation; and hand racking is eliminated.

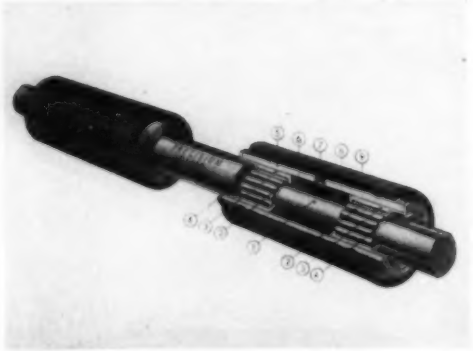
One of the newest uses for the machine is in sweater manufacturing. A new approach has been developed for the framing and steaming of transfer-type sweater fabrics. Cloth can be handled on the machine in the piece length instead of the individual body sections. Garment separation can then be done at the cutting table prior to garment cutting.

The calender will successfully treat fabrics constructed of synthetic fibers or blends of synthetic and natural yarns. It has been found that relaxation of these cloths must be accomplished in a steaming medium. This principle of relaxation is a basic feature of the Tube-Tex tensionless calender.

Physical control of knit-goods shrinkage can be obtained on the new unit, so that the need for extra fabric handling is eliminated. The straightening of striped fabrics consists of an operation that formerly was performed on the Tube-Tex straight-line calender. The new attachments permit the straight finishing of striped fabrics in a single pass on a tensionless calender.

The machine will either roll or fold the fabric.

Needle-Bearing Top Rolls Preserve Shell and Cot Alignment



CROSS-SECTION of the new needle-bearing roll shows (1) the shaft, (2) the needles, (3) the bearing race, (4) the thrust and seal assembly, (5) the cylinder, (6) the grease reservoir, (7) the grease plug, (8) the shell, and (9) the covering or cot.

A new type of antifriction top roll that employs "free" 3/32-in.-dia. bearings with the lubricant sealed in "for years of service" has been developed by Precision Rolls Co., Box 5087, Columbus, Ga. Rolls are guaranteed for three years. Provision has also been made for regreasing, without disassembling the rolls, on a once-a-year schedule.

The precision roll eliminates short-term oiling and the repair or replacement of cap bars and saddles. It also eliminates yarn spoilage through oil stains. No alterations in regular cap bars and saddles on frames are necessary.

Dual-hardened bearings for each cylinder of the roll preserve shell alignment and eliminate rock. Lateral thrust of cylinders is taken care of independent of the bearings, and so longer life of the bearings is assured. Seals of the tension type are co-related with the thrust and are not only fluid tight but air and lint tight. Shells can be snapped on or off the cylinders by hand.

Cots to specifications are cemented on thin metal shells, which are held in place on the cylinders by a tension grip and grooved latch. The snug tension fit insures unusual concentricity and also eliminates creeping and vibration, the manufacturer states.

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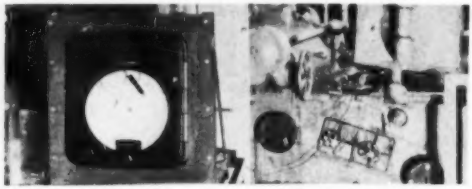
Recording Instrument Measures Vat-Dye Reduction Potential



CONTINUOUS MEASUREMENT AND RECORDING of the oxidation-reduction potential of vat dyes in the Marhen process is accurate to within 5 millivolts. But differences of more than 15 mv. are necessary to affect the shade.

The Dynalog Redox Recorder, which measures, without the use of a preamplifier, the oxidation-reduction potential of vat dyes as a means of improving their fastness properties in continuous or batch dyeing, has been developed by The Foxboro Co., Foxboro, Mass. The standard EMF recorder is especially suited to the Marhen process since it receives its electrical signal directly from the dye bath. There is an accurate, continuous measurement of the vat-dye reduction power in millivolts to guide the control of the process.

In operation, the recorder is directly connected to two electrodes that are submerged in the dye bath, continuously measuring the reduction potential. Knowing the potential that is required for reducing the dye, the operator adjusts the quantities of hydro and caustic going into the bath, which react to release electrons and thus create the necessary potential, recorded in millivolts on a circular chart.

The chart can be read to within 5-mv. accuracy, but differences of as much as 15 mv. will not affect the shade. Since one degree of temperature change produces a change of two millivolts in reduction potential, a temperature record in degrees F. is generally provided on the same chart.

The chart range, from 600 to 1200 mv. for continuous and package dyeing, can be shifted by a selector switch in the instrument to measure any 600-mv. span between 0 and 1400 mv. Higher ranges are also obtainable.

In addition to its chart, the recorder is equipped with an expanded segmental indicating scale, visible at a considerable distance. An alarm may also be included to signal departure from the desired potential, and control devices may be installed to regulate hydro-caustic content, correcting the dye-bath potential automatically.

Commercial users have reported savings of up to 1,000 lb. of hydrosulfite per day, increases of 10 to 20% in color yield, excellent shading from high temperature (200° F.), and production-speed increases up to 100%.

Selvage-Marking Machine Prints or Leaf-Blocks Automatically

The importance of selvage printing is constantly increasing, especially today in the identification of fiber content in fabrics, and so a new selvage-printing machine has been made available in the United States by Maag Bros. Machine Works S. A., Kuesnacht (Zurich), Switzerland, through The Trumeter Co., 1265 Broadway, New York 1, N. Y.

The Maag selvage-printing machine is said to be the only machine on the market capable of printing with ink or blocking with cold or colored lettering by a heat process. The machine is equipped for one or the other of these methods according to customers' requirements. It will print equally well on the finest silk or the coarsest cotton cloth. Light to medium-heavy woolen goods are also successfully processed.

The standard machine is built to operate from roll to roll but can, if required, accommodate other packaging.

The cloth from the feed roll runs over a drawing-off roller, then over two guide rolls that oscillate together, and a further drawing-off roll before it is rolled up again. The take-up roll is controlled through an adjustable clutch.

Printing takes place between the two oscillating rolls. The part of the cloth to be printed is momentarily stopped while the impression is being made. While the cloth movement is thus stopped, the feed roll, drawing-off rolls, and take-up roll continue to rotate and so insure even and quiet running of the machine.

The printing machine uses flat type. No special blocks need be engraved, as is the case with the rotating type of machine. This feature considerably increases the versatility of the machine.

The maximum printing length is 8⅝ in. and height is 25/32 in. For gold or color blocking, the printing type is electrically heated and can be set as required. The leaf is fed automatically from the roll and can be adjusted accurately according to the type height, and wastage is thus eliminated.

When printing with ink, the machine works exactly like a small printing press. It consists of an ink container, a conveyor roller, four inking rollers, and the type matter. All these components can be removed for cleaning and checking without the use of tools, just by a few simple hand movements.

FABRIC IDENTIFICATION by printing on cloth selvage is insured on this machine by a printing head that is mounted on rollers positioned at right angles to the flow of the cloth going through.

By means of a straight forward arrangement, the machine can be set to print every 1, 2, 3, 4, or 5 yd. To ensure accurate printing on the selvage, the printing head is mounted on rolls at right angles to the cloth movement and can be moved by very light pressure on a controlling lever. An adjustable guide plate is provided for this purpose.

The machine can be built for any required cloth width. Wide machines can accommodate any narrower widths of cloth.

Production is dependent on the system used. With leaf blocking, a speed of 30 yd. per min. is possible; with ink printing, 40 to 60 yd. per min. The machine is equipped with a variable-speed motor whose variety of speeds is regulated by a switch.

For FURTHER PROOF OF X-2 EFFICIENCY...

Report of: W. M. Baldwin
Week ending: 2/7/52

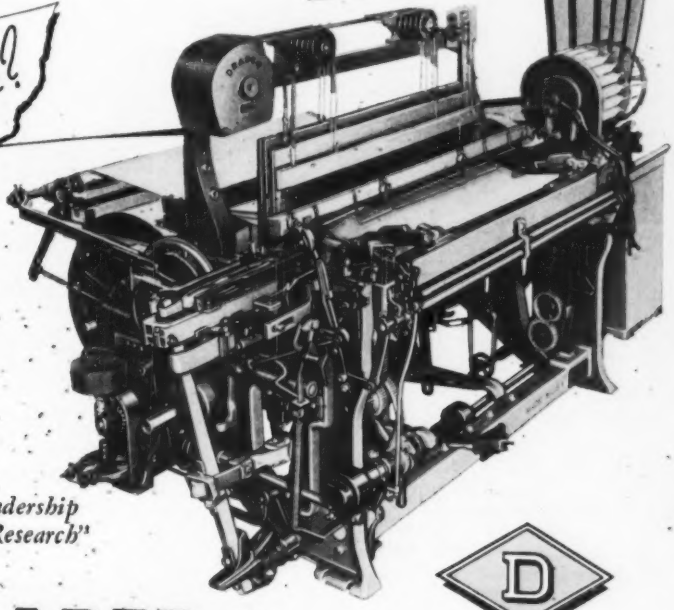
_____Mills*

They certainly are doing a swell job here on the X-2 Model looms; construction 44x40 sheeting, efficiency 96%, seconds 3%, looms per fixer 96, looms per weaver 96, and loom speed 196 P.P.M.

When I was in the weave room, Mr. _____ pointed out two weavers that were sitting on a box with all looms running.

*Will name upon request.

Need we say more?



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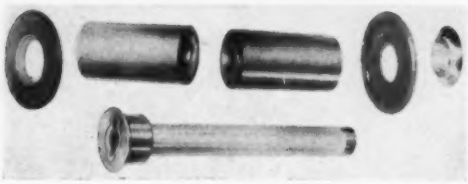
No Need for Dynamically Balancing This Bobbin



COMPONENTS of the new Lestershire bobbin are made of a minimum of costly materials, yet they are stable and are manufactured to close tolerances, the manufacturer says.

A new bobbin that does not require dynamic balancing because the materials used in it—aluminum, hard vulcanized fiber, "Phenolite" (laminated Bakelite), etc.—are stable and every part is manufactured to close, concentric tolerances has been put on the market by Lestershire Spool & Mfg. Co., a division of National Vulcanized Fibre Co., Johnson City, N. Y.

All screws are eliminated. The heads are held rigidly in place by beveled aluminum bushings that give annular distribution of stress. The bushings are threaded directly to the aluminum center tube of the bobbin and are locked in place. The barrel, of molded Bakelite, fits snugly at the center against the inner metal tube and around the end bushings. This construction assures great strength for the entire barrel and concentricity for the unit.

Nylon bushings in the drive slot eliminate wear from contact of metal with metal and thus also reduce noise during operations. Special Phenolite bushings maintain dimensional stability when stemmed.

All parts are standardized and replaceable when necessary.

Vertical Magazine Creel Available for Large-Package Yarns

50% LESS FLOOR SPACE for the number of ends in the creel, as compared to previously designed vertical creels, is cited as a distinct advantage of this unit.

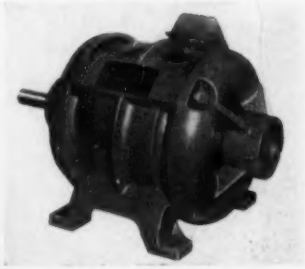
A new vertical magazine creel, designed specially to handle cakes, cheeses, and other heavier yarn packages, has been announced by Edward J. McBride Co., 1400 Adams Ave., Philadelphia 24, Pa.

The new creel is equipped with the latest sealed mercury-switch stop motions and two-way signal lights for quick location of broken ends. The creel is also equipped with the recently announced McBride "Universal" cone holder, which permits use of cones or tubes in a wide variety of package sizes.

The creel is said to accommodate nearly any package and is especially suited for the warping of heavy yarns. Special plate-like plywood shields on which the individual package rests prevent slack ends from dropping down out of position and thus becoming lost or tangled.

It is reported that the new creel takes about half the floor space, per end of yarn, of previously designed vertical creels. The spindles are located so that all two-cone tandem arrangements are loaded from one side of the creel, with no revolving brackets required. All ends are easily reached from the aisles within the creel.

New Roving-Frame Motor Is Slow Accelerating



EVEN TENSION ON ROVING is obtained with this high- or low-torque roving-frame motor that is available in both 3- and 5-hp. ratings.

Development of a slow-accelerating motor (Type APQR) for slubbers, intermediates, speeders, jack frames, and other types of roving frames, has been announced by Allis-Chalmers Mfg. Co., Milwaukee, Wis. The new motor is built to provide even tension on the roving during starting-up periods.

Although the motor has only one winding, it is classified as a dual-torque machine. It has 12 leads that can be connected for either low or high torque.

The motor's "Quick Clean" wide open-frame design permits fans to sweep lint and dirt through and away with the cooling air. Interior surfaces are smooth and hard. Large air passages are contoured to aid air flow.

Bearings of the motor are lubricated and sealed at the factory. Grease cannot leak from the bearings, and lint and dirt cannot enter.

The new motor is available in 3-hp. 1,200-rpm.; 5-hp. 1,200-rpm.; and 5-hp. 900-rpm. ratings.

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12 BASIC BENJAMIN LIGHTING SYSTEMS and many specialized lighting units to help solve production problems, are recommended by Benjamin. These Systems are the result of *50 years of specialization* in the lighting of all types of mills and plants. Included are those engaged in the manufacture of essential goods, such as textiles, aircraft, guns, ships, tanks, powder, ammunition, chemicals, clothing, food, etc.

IMPORTANT INFORMATION is also included, concerning recent Benjamin developments which *facilitate maintenance, cut operating costs* and *provide sustained lighting efficiency*. Covered are such advancements as the new "Magna-Flo" Systems which utilize the new Slimline Fluorescent Lamps; "Springlox" Lampholders, which speed up fluorescent lamp maintenance; and "Turnlox" reflector equipment, which promotes simplified maintenance of incandescent units.

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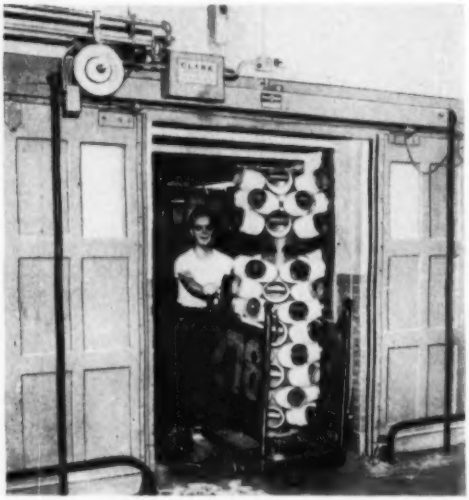


FAST OPENING AND CLOSING of automatic doors, with no employee effort or loss of heat or humidity, are important considerations for any cost-conscious mill.

Inside "Prest-O-Matic" doors, built in bi-fold, single-sliding horizontal, and double-sliding horizontal types, have been made available to textile mills by Clark Door Co., 507 Hunterdon St., Newark 8, N. J. Stock in process is delayed less in mills that have automatic doors installed, and optimum relative-humidity conditions are also maintained more easily.

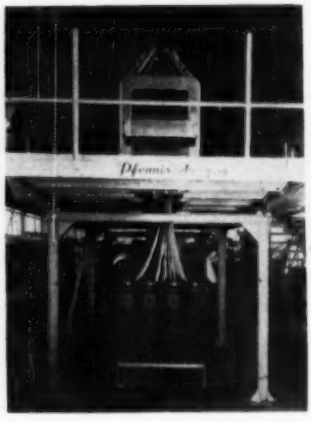
The complete unit is operated by an electric motor, with an approach-pull-cord, electric eye, or floor plate controls. A fast-operating cycle curtails loss of heat in wintertime and conserves humidity.

In plants where humidity controls pose a critical problem, conditions can be improved even more by the use of a vestibule instead of an existing doorway, equipped with two sets of doors, each opened separately automatically as motorized indoor trucks enter or leave. The result is very much like an air-lock, patterned after canal locks. Very little loss of temperature or humidity takes place when such a setup is installed.

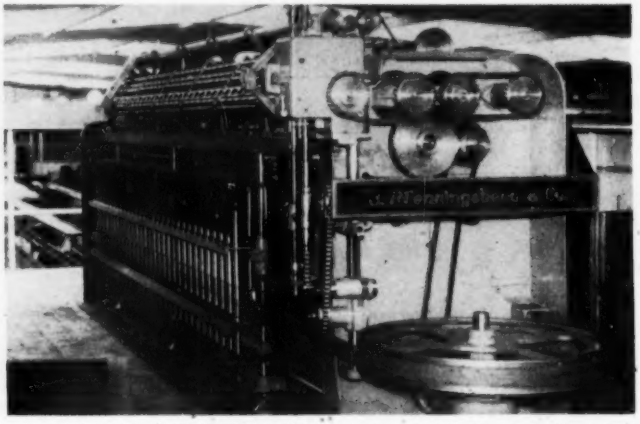
A feature of the automatic doors is that they come complete, ready for installation by any plant crew. Since they are fitted against the walls on either side of the door, there is no critical "fitting" in archways, no alteration necessary and no resultant draft. Simple instructions for installation are supplied.

The doors are available in any required size, the standard usually being 7x7 ft. to 8x8 ft. with or without pedestrian pass doors.

German Direct-Spinning Machine Eliminates Spindle-Tape Drive



PLATFORM, or a double-deck spinning room, is necessary for the installation of the Pfenningsberg frame so that the drawing sliver can be placed directly under the frame and be drawn up through its center to the drafting area.



UNCOVERED END of frame shows simplified gearing and the direct leather-belt spindle drive that encircles the entire frame and allows for a narrower-width frame by elimination of the ordinary spindle-type driving cylinder.

At the most recent Hannover Technical Fair in Germany, Josef Pfenningsberg & Co. of Siemenstrasse 20 in M.-Gladbach in the Rhineland showed a new two-level 60-spindle ring spinning frame that spins cotton direct from drawing sliver, with drafts up to 130. In addition to the high draft, elimination of the standard spindle-tape drive was another feature.

To get the needed free area in the center of the frame to allow the sliver to be raised up from under the frame to the top drafting rolls on the 2½-ft.-wide machines, the standard tapes and driving cylinder were eliminated. The spindle-driving medium instead consists of an endless tangential belt that circles both ends of the frame in an enclosed area and drives the spindles directly by means of pressure applied by alternating vertical tension rolls located immediately behind the spindles.

One German spinning mill, constructed for direct spinning of sliver to yarn, has been running 12,000 spindles of this type for a year and is said to have "best results."

The drafting system of the frame is set up at an angle

Booth

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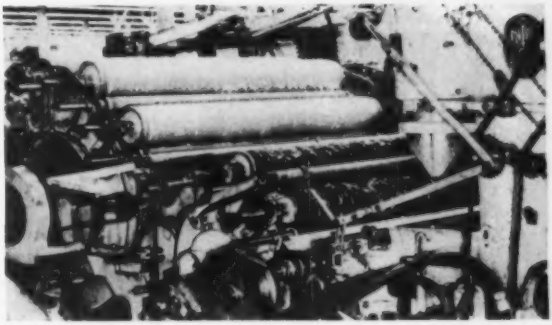

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OUR 60th YEAR OF SERVICE

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The sure way to prove the value of STRIP-O-MATIC is to give it a test on one of your cards. Equip a complete card with STRIP-O-MATIC. Keep an accurate record of the results with the special Booth test plan. You'll be amazed at how much stripping waste you'll save, how much greater production you get and most important how your yarn quality is improved.

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BENJAMIN BOOTH COMPANY, Allegheny & Janney Sts., Phila., Pa.

Booth

of 55°—what is said to be a very favorable angle for spinning. It is a five-roll drafting unit with a single apron, provided with modern pendulum-type saddles that need no lateral guidance.

The frame is suitable for large bobbins and cops up to nearly 12 in. long. The standard frame has a 3 3/16-in. spindle gauge with 2¾-in. rings, or a 3¼-in. spindle gauge with 2 3/16-in. rings.

The driving arrangement of the frame is said to be so simple that it can be taken care of, including changes of twist and yarn number, by unskilled help after a very short period of training.

Other advantages of the new frame are (1) elimination of all flyers in the making of yarn, the sliver merely being divided in two at the last passage of drawing and fed from the same can to two spinning spindles instead of one; (2) a full 9-in. sliver-can life of almost 200 hr. of direct spinning; (3) the elimination of all creeler hands except one of every 12,000 spindles; (4) no creel on the frame to obstruct vision around the spinning room; and (5) automatic overhead cleaning system easily installed and made efficient.

Wide-Range Motor-Control Unit Can Be Used on Looms

A wide-range speed and torque generator, Model 302-A, has been put on the market by Industrial Control Co., Wyandanch, L. I., N. Y. It consists of a special motor and control box operating from a 117-v. 60-cps. line. The motor speed can be varied from 100 to 10,000 rpm., with a maximum output torque of 1.0 oz. in.

Matching gear boxes are available for any reduction ratio. Motor speed can be controlled remotely, either by varying d.c. voltage or a shaft position.

The speed may be read directly on a front panel meter, and provisions are made to measure the torque delivered to the load.

The 302-A finds application in automatic-control systems, light machine tools, industrial-process control, coil-winding equipment, servo directors, variable-speed turntables, and textile looms. With it, running torque measurements can be made on devices such as gear boxes and tachometers.

NEW *Dyes* AND *Chemicals*

Non-Curing Resin Gives Range of Hands

A new non-curing resin, Harto-Resin R, made by Hart Products Corp., 1440 Broadway, New York, N. Y., is said to provide a range of interesting hands on synthetic fabrics, especially acetates. It is recommended by the manufacturer for finishing foulards, jacquards, ninons, satins, and taffetas. The product is said to impart a stiff, lustrous finish to ribbon material of acetate, rayon, and mixtures. This resin locks the fibers and prevents unraveling upon cutting of the ribbon material, the maker claims.

The resin is a water-white new-type phthalate-base resin that, it is claimed, will not cause mark-offs or dull effects since it dries to a crystal-clear finish. The product possesses low viscosity when diluted, and so thorough penetration of the fabric is obtained.

New Chemical Boosts Detergency of Soaps

A new product called Mabros 99 Spec., made by Phillips Scientific Laboratories, P. O. Box 152, Arlington, N. J., is said to boost the detergency powers of soaps and standard detergents. When added in quantities as low as 1% of the weight of the soap used, the product is said to eliminate soap film and destroy odors that result from the residual soap film.

Azoic Paste Emulsions Produce Sharper Prints

Arigen Pastes, stabilized azoic dyes in emulsion form, have been introduced by Interchemical Corp., Textile Colors Div., Hawthorne, N. J. These new products are recommended for the fast-color printing of cotton, spun rayon, and other fabrics.

Arigen Pastes were developed specifically for use in printing by Interchemical's Aquadye Emulsion system. They are equally suitable for use in conjunction with conventional gum thickeners, so it is unnecessary for a plant to carry in stock both Arigen Pastes and another form of stabilized azoic dye.

Among the advantages claimed for the products when applied by the Aquadye Emulsion system are sharper marks, smoother blotches, better hand, and greater ease of application. Because no starches or gums are present in the emulsion, this system is said to be valuable for printing flannels, suedes, and sheers. Arigen Pastes are recommended also for printing draperies, upholstery fabrics, tablecloths, handkerchiefs, dress goods, and other materials.

New Antistatic Agent Aids Cutter of Synthetics

A new antistatic agent with cationic characteristics for use on acetate, rayon, nylon, and the new synthetic fibers has been announced by Dexter Chemical Corp., New York 59, N. Y. The company reports that this agent, Lektrostat C, resists dry cleaning and washing to a moderate degree. It is being used for fabrics made of the new synthetics to improve cutting and "laying up" properties of the finished fabrics.

Garments and other articles made from these treated fabrics are reported to have a better appearance and hand and to resist soiling due to electrostatic attraction of dirt and dust. The product has been used to effectively combat static during spinning, slashing, and weaving of synthetic yarns and fabrics.

One to 3% of Lektrostat on the weight of the goods is said to be sufficient. The goods are run in a dyebeck in the solution for 15 to 30 min. at 120 to 130° F. or padded through the solution. The product is said to be compatible with resin mixes and with copper aftertreatments as well as with starch, dextrines, gums, and similar substances. It dissolves in hot water, is soluble in neutral, acid, and alkaline solutions, and is unaffected by hard water.

New Vinyl Resin First of Series

The first in a new series of Pliovic polyvinyl chloride resins has been put on the market by Goodyear Tire & Rubber Co., Akron 16, Ohio.

Designated Pliovic 690V, the new resin is described as a general-purpose, straight-vinyl material that has an approximate intrinsic viscosity of 0.90.

Outstanding thermal stability, a high bulk density for ease of handling, and easy interchangeability with other resins are claimed for the product.

The new product is expected to find its most extensive application in vinyl film and sheeting for rainwear, draperies, upholstery, and similar materials.

Plant trials and laboratory tests have demonstrated that products made with Pliovic 690V exhibit low water absorption, relatively good flexibility at low temperatures, and other desirable physical characteristics. Clarity of unpigmented compounds is reportedly exceptional.

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What's more, pre-erection, factory run-in and sectional shipment of the Headless Package Unirail Uptwister simplify installation . . . get your new uptwister on the job quickly with perfect assurance of top performance from the start.

Can any uptwister be that good? — Read the new fact-packed Bulletin 501 and see for yourself. Or better yet, see your nearest Universal Winding Company sales representative for full details.

NEW BULLETIN 501 shows you in detail how the new Unirail Uptwister cuts your costs, speeds up production and improves yarn quality. Write today.

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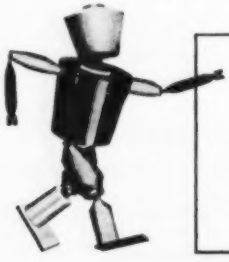

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Round Table

SMALL SHED DIFFERENCE DOESN'T MATTER

Dear Editor:

On p. 156 of your July issue you show a Kink about stronger harness fasteners. It seems to me that the harnesses would not have a level movement unless both leader wires were attached to the same jack eye. Is this idea correct?

WALTER A. SIMOND

Essex Junction, Vt.

[*The harness shed near the dobby jack would be ¼ in. smaller than the shed at the opposite end of the loom, but this small amount should not make any difference in cloth appearance on an average weave.—Editor*]

WOOL-COMBING PREDICAMENT

Dear Editor:

We have noted your company editorial "Aid or Trade? A Crisis Ahead," in which you point out that protests are being made against the tariff reductions that have been made under the Reciprocal Trade Treaties and that this is a serious matter because it is preventing the various countries abroad from getting on their feet.

That may be true, but you naturally do not expect an industry such as the textile industry, which is being seriously damaged, to be very happy about the fact that the foreign industries are being built up at the expense of our own.

The Reciprocal Trade Treaties have reduced the ad valorem duties on wool tops from 20 to 6½% and the specific duty from 37¢ to 27½¢, and it is quite obvious that with lower values for wool in the world, wool combing mills here cannot compete and will not be able to compete unless we drastically reduce our labor and give up our standard of living.

In addition to the imports that are coming in through the reductions of tariff, several countries have found a means of entirely circumventing that tariff we have. In France, exporters of wool tops are given taxation advantages that permit them to export at 10 to 12% less than their cost would be for home consumption.

In Uruguay they have one rate of exchange for the export of wool tops and another rate for wool, which gives a 41% advantage to the exporter of tops. Thus the tops can be combed in Uruguay, brought to this country, and sold in bond at very close to the price of the wool from which they are made; and in this country if we buy the wool, it costs an additional 48¢ per pound to make them into tops. The importation of these tops has mushroomed from practically nothing in 1949 to 10 million pounds in 1951, and during the first four months of 1952 the imports have risen to an annual rate of 15 million pounds and are increasing so rapidly that it will probably be 20 million pounds before the year 1952 is finished.

This exchange manipulation is a bounty or grant that is designed to build up the combing industry in those countries at the expense of ours, and it very definitely is doing it. This bounty or grant, of course, is illegal; and according to the Tariff Act, in such a case of dumping, a countervailing duty is supposed to be imposed on the goods. But that is in the hands of the Secretary of the Treasury, who refuses to admit such a bounty or grant exists.

We would point out to you that during World War II our wool combing industry ran under high manpower priorities, which were rated for quite a long period of the war second only to the Manhattan Project, which was later known as the atom-bomb project. Through the use of all of our machinery, we were able to clothe our armed forces; and although for a long time our industry was under WPB orders, which prevented running anything for civilian use, nevertheless throughout all the war we also kept the civilians supplied. During the war we could have bought tops from no country in the world.

The reductions in tariff and these bounties are going to put our wool combing industry out of business; and we would like to ask, who is going to take care of us in the next war?

It is all very well to help our neighbors get on their own feet, and we are entirely in favor of so doing, but not to the point where we close up our industry so that we are dependent on them when the next war comes.

The imports are already having their disastrous effect. The largest wool combing company in this country, which dur-

(Continued on page 326)

TEXTILE TICKLES . . . . . *By Edgar Allen, Jr.*

"I'll tell you if it sounds attractive, if you tell me how many of the men here are single!"

Exploring

The Textile Community

The SAXAPAHAW TRADITION— Planning for Village Charm

▶ Bulbs and bulldozers, paint and privet hedge, vision and vegetable gardens—all have helped turn a neglected mill village into a community to be proud of.

By MILDRED BARNWELL ANDREWS

"WHEN WE FIRST TOOK OVER the mill at Saxapahaw, it was probably the worst-looking village in the industry," said Everett Jordan, president of Sellers Manufacturing Co. "I'll never forget when my wife, Katherine, and I drove over that hill for the first time and crossed the little one-way bridge over the river. I looked at her out of the corner of my eye and saw that hers were filled with tears. It was certainly a contrast between where we were going to live and the pretty home we had left.

" 'Well', she said, 'you work on the mill and I'll work on the village, and between us we'll straighten this place up.' "

Thus was born one of the most ambitious beautification projects undertaken in any textile community.

Katherine Jordan saw the neglected, unkempt village with houses unpainted for many years, but she also saw beyond them and through them the beautiful natural setting of the historic little town. Here on the bend of the Haw River, where the rolling hills dropped sharply to the river bed, the Sissapahaw Indians had lived more than two centuries before the white man came to settle about 1740.

Where That Name Came From

Another hundred years and the first little yarn mill was established in 1844 by the Newlin family, who changed the name of the village from Sissapahaw to Saxapahaw because John Newlin's secretary had difficulty spelling the former.

During the succeeding three generations the mill prospered, expanded, deteriorated, and declined with the cycle of good times and hard times. Then Everett Jordan and his associates bought the mill properties at a receiver's sale.

"Katherine has done this beautification job single-handed, almost—and on a shoestring," said Everett.

She brought from her old home the first truckload of shrubs, iris and other bulbs, and a start of privet hedge. Every time she heard that a friend or a friend's friend in nearby Burlington was thinning out shrubbery or replanting hedges, Katherine made a beeline to get the surplus. She taught the villagers that grassy lawns and blooming plants could grow in the barren, clean-swept yards and that beauty in each engendered more beauty for the entire community. She planted miles of privet hedge, and patiently each fall she separated bulbs to replant for greater beauty. She planted trailing and clinging ivy on the old and corroded rock walls.

A Bulldozer Destroys—and Rebuilds

Then three years ago the State Highway Commission authorized a new paved highway through Saxapahaw. The bulldozer and highway crew straightened out the curve, but in doing so they left high, bare road banks—and they left a row of houses practically hanging on the edge of a bluff-like hill.

"So we fixed that," said Everett. "We bought us a bulldozer. We tore down those old houses and removed the whole hill, and then we sodded all those bare banks."

As new houses were built to replace the others, the long-range beautification program was telescoped into a more concentrated effort but contained all the planning inaugurated by Katherine. Where land is available as the village spreads its original limits and new houses are being built, a minimum of two acres of ground is allotted to each modern dwelling. The front yards are well-landscaped and most have beautiful tall trees. Vegetable gardens are in the rear. In addition to the hedges, ivy, iris, and other flowers, hundreds of dogwood, water oak, and redbud trees have been planted throughout the village.

Beautification Is Village-Wide

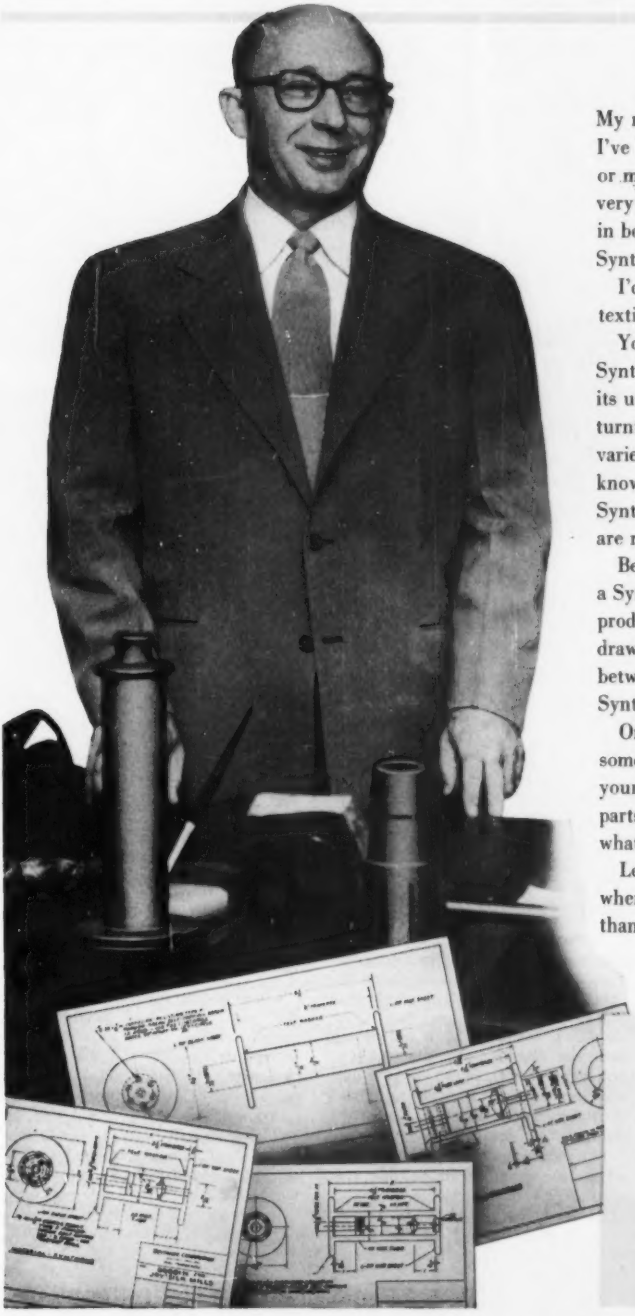
The banks of the Haw River have been cleared of old tangled thickets and have been landscaped, and a splendid recreation park has been laid out on the flat terrain bordering the river's west bank. Barbecue pits and a baseball diamond are just two of many types of recreation provided there.

The little wooden schoolhouse, which was both inadequate and unattractive, has been replaced by a large brick building fully equipped for today's educational program. This, too, is something of a mill beautification project, for the company gave the beautiful site of the present new building and bought the old wooden building. With those funds and the state-county allotted funds, the new school was built. The mill long ago gave sites for the churches, and the Sellers Manufacturing Co. helped build for each a comfortable and attractive parsonage. A new community house on the east bank of the river has just been completed. Landscaping for it includes an outdoor play-court and flagstone walks and the grounds will be planted in the Saxapahaw tradition.

A Cooperative Project

Today that tradition—planning for beauty—has grown into a real Saxapahaw Community Cooperative project under Katherine Jordan's watchful directions, for the little village of 700 acres and about 150 homes is a source of pride to each employee of the mill. A full-time crew of gardeners man the mill's bulldozer, the special-type mow-

Help wanted? Maybe I'm your man



My name is Fred Nave.
I've been in the textile business for 25 years or more—mostly as a mill man. I have a very good idea what mill men want in bobbins. That's why I represent Synthane laminated plastics today.

I'd like to talk about Synthane from a textile design standpoint.

You are probably already familiar with Synthane as a material . . . and about its use in bobbins, pirns, package tubes, turning and examining forms and 57 other varieties of applications. But you may not know about the design assistance that Synthane representatives like me are ready to give textile men.

Below you'll see a few drawings. Each is a Synthane part that helped some textile producer solve a problem. Each of these drawings is the result of a consultation between that textile producer and a Synthane representative.

One of us would like to drop in on you sometime soon. We'd like to talk about your machines and processes . . . about your parts problems. We'd like to give you whatever design help you may need.

Let our people at Oaks know when you're ready to talk to us . . . and thanks for listening to me.

Textile Division

SYNTHANE

SYNTHANE CORPORATION

Oaks, Pennsylvania

ing machine for grassy banks, and the regulation mowers for flat stretches, paths, and community greens. Villagers tend their own premises.

At a small hourly rate, the Boy Scout troop takes over many village clean-up jobs and thus helps meet expenses at its summer camps. Last year the Scouts helped pay their expenses to the Jamboree at Valley Forge with beautification-project money, and next year they plan to foot the bill to the California Round-up the same way.

Health Programs, Too

For years the Sellers Manufacturing Co. has worked on an improved health program in cooperation with the county doctors and the county health department. A TB X-ray program has been under way at Saxapahaw since 1935, when the mill purchased X-ray equipment for the Alamance County Sanatorium. The mobile unit today supplements the health program. But Saxapahaw has even better health plans for the future, for how can one truly enjoy a beautiful town unless one has some health security? A modern clinic, complete with hospital beds and modern equipment, has been built by the people of the community for any likely young doctor who will settle and practice there. The mill will provide the site and build a home nearby for the doctor's use.

There are many larger, more pretentious mill communities than Saxapahaw, N. C. There are mill villages that actually are small cities; there are mill communities that are cities-within-cities. But in no place have we found a better, more productive beautification plan than in this somewhat isolated little mill town on the banks of the Haw River.

Its dollar cost can be measured in terms of bulldozer, mowing equipment, and crewman's paycheck, but the great expenditure in faith and courage and vision by Katherine Jordan is an immeasurable intangible. The combination has paid off in the high morale of the workers and their innate satisfaction and appreciation of their village's charm.

Questions AND Answers

Two Positive Tests To Identify Cotton

Technical Editor:

Is there a test that will distinguish cotton from other fibers in a sample? (9589)

Positive identification of cotton can be made with a pocket microscope and a few chemicals.

A pocket microscope, which may be purchased very cheaply, will show the convolutions in unmercerized cotton.

Cotton, when treated with a few drops of cuprammonium hydroxide, swells into a series of balloons or beads that appear like a string of beads before they dissolve. This phenomenon is found only in cotton. The solution is prepared by treating a strong solution of copper sulfate with ammonium hydroxide. The precipitate is filtered and, after a washing in boiled or distilled water, is redissolved in barely enough ammonia to put it in solution. This solution is stable if kept sealed in a dark bottle.

Vacuum Extractors Are Favored in Range Setups

Technical Editor:

Are centrifugal extractors being replaced by any other type, particularly the vacuum type? If so, why? Are any trends in this direction more noticeable in the Southern than in the Northern textile plants? (9586)

The vacuum or suction type of extractor is being used more and more wherever new dyehouses are built. Certain heavy cotton fabrics, such as corduroy, hold so much moisture that it is desirable to run them over an extractor before they are dried. Moisture can be removed from cotton fabrics by squeezing them through nip rolls, but the excessive pressure on pile-type fabrics is apt to distort the pile. Here, a vacuum extractor proves of value.

Many of the new synthetic fibers are hydrophobic in nature, and moisture will cling to the surfaces of a fabric made from such fibers. When the goods are run through a squeeze roll, the moisture is deposited on the squeeze rolls, and, in turn, is redeposited on the fiber. This means that squeeze rolls are not too efficient in removing water from the goods. Extraction is more satisfactory, and both centrifugal and vacuum types of extractors will do a good job.

However, there is a growing tendency towards range processing, and a vacuum extractor can be placed in a drying-range line so that goods coming off the dye machines can be run directly over the extractor and straight into the finishing equipment. This arrangement, of course, saves a considerable amount of time and labor over the batch operation of centrifuging.

Slot vacuum extractors in range setups are reported to be doing an efficient job of moisture removal. It appears there will be a greater use of such extractors because of the desirability of combining several operations in one, with a consequent saving in time, labor, and costs.

Weave Hound's-Tooth Pattern On Plain or Twill Weave

Technical Editor:

How can I weave hound's-tooth suiting on a W-2 Knowles-head loom? (9565)

A good hound's-tooth pattern for a small check is woven with four ends in the warp and four picks of filling for each of two colors.

Another pattern similar to this one can be woven from six warp ends of each of two colors and six picks of filling to match.

The harness pattern can be a plain weave of one shaft up and one shaft down or a 2x2 twill.

A mock sharkskin can be woven if you use one light-colored warp end and one dark-colored warp end, and put in two picks of each color of filling.

Mineral Dyes Are Obsolete But May Fit Special Case

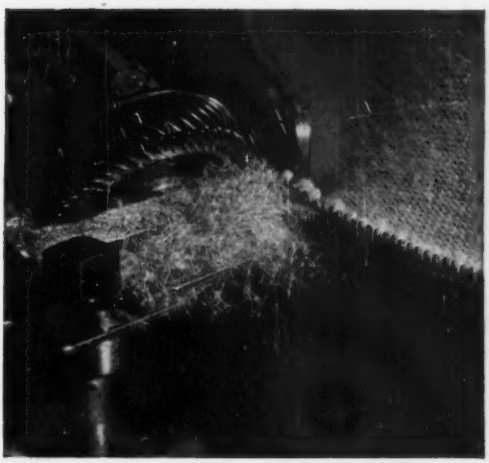
Technical Editor:

What formula can be used to dye with mineral dyes? Are mineral dyes sold commercially? (9591)

Here is one method: Impregnate the cloth with lead acetate made slightly alkaline with soda ash; then precipitate the insoluble alkaline lead chromate into the fibers by a treatment with a potassium bichromate solution.

The process is obsolete, but it may find use in some special cases. The colored mineral salt imparts a stiff hand to any material and makes the cloth useful only for industrial fabrics, not for clothing.

As mineral dyes are made in the fiber by the dyeing process, no mineral dyes, as such, are on sale.



AVCODISK

A synthetic, dispersable wax with superior lubricating qualities, Avcodisk does not clog needles. Avcodisk is easily removed during scouring . . . does not strip on needles and tension guides. High melting and softening points eliminate the need for changing types of disks at different seasons of the year.

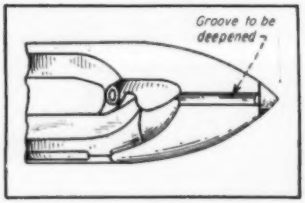
Avcodisk is one of the many textile chemical products offered for the textile industry. Write today for samples and complete technical information.

Avcodisk was developed in conjunction with and is manufactured by Atlas Powder Company, Wilmington, Delaware

Avisco

Kinks AND SHORT-CUTS

Filling Will Thread Up If You Cut the Shuttle



CUT THE SHUTTLE with a small rat-tail file, finish with fine sandpaper, and shellac the surface.

The bobbins used to fail to thread up at the transfer on our C-4 looms. When the bobbins did not thread up, the filling always broke on the next pick of the shuttle from the drop-box end of the loom.

We cut the groove deeper at the front of the shuttle eye and stopped most of the filling breakage. The filling threads up better when the wood of the shuttle does not hold the filling away from the eye.

The only disadvantage is that some loomfixers are careless and cut the shuttle too much. *Bernard Dixon, Danville, Va.*

[Editor's note: This practice will reduce filling breakage, but there's also danger that some shuttles will be cut too much and ruined. Most shuttle manufacturers will make shuttles that will thread up on the transfer, if the mill shows them how.]

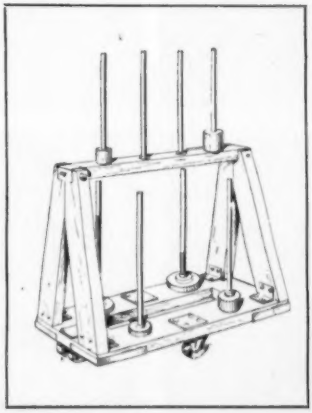
Spray Wax on Floors

In the ordinary application of wax, the wax is poured on the floor and swabbed down by hand. A lot of wax is wasted this way.

We use a hand spray to apply the wax to the floor.

The wax is applied in a fine, even mist. Less wax is used, and less effort is required. *H. A. Concannon, Ashton, R. I.*

Change-Gear Truck Helps Us Keep Gears From Getting Mixed



WE USE THIS TRUCK to carry change gears to the spinning frames and to hold the old gears taken off the frames. Having a separate gear spindle on the truck for each kind and size of gear helps us avoid mixing the gears.

A change-gear truck, shown in the accompanying sketch, is used by our fixers to keep gears from getting mixed or lost.

Before we made the truck, fixers laid the new change gears on the frame head; then when they'd taken the old gear off, they placed it either on the head or the floor.

Oil and dirt from the gear often rubbed off on the frame or floor, and sometimes a gear would get knocked under a frame.

Now when a fixer is going to change gears, he places the new gears over a spindle in the top tier of the truck. If he has more than one kind of gear to change or has more than one size of the same gear, he uses more than one spindle.

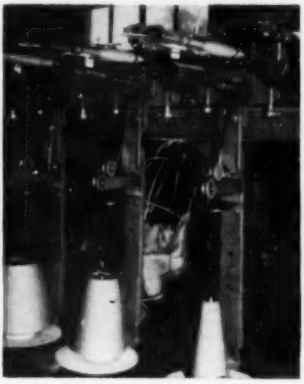
When he takes the old gear off, he drops it over an empty spindle, either on the top tier or the lower tier of spindles.

As shown here, the new draft gears the fixer is putting on the frame are on the spindle to the right. The old gears he's taking off the frames are on the spindle to the left.

The truck frame is made of 2x4-in. lumber and is mounted on four wheels taken from an old roving bar. Two spindles, made of ½- or ¾-in. rod, are fastened upright to each side of the rectangular 2x4 base; and four spindles are attached to the top of the truck's frame to form the top tier of spindles.

As can be seen in the picture, the truck frame is about as high as the spindle tops on a spinning frame; and the top of the upper tier of gear spindles on the truck is about chest height.

Fan Cleans Abbott Units



A 16-IN. FAN is placed on a stand at the end of the automatic quiller. That's all! The fan does the cleaning.

We have an air hose on our Abbott quillers to clean the traveling units as they move by the head. The air current from the air hose often breaks the ends on fine filling.

When we run filling finer than 36s, we disconnect the air hose.

To clean the units on fine work, we place a large electric fan inside the machine frame at the end of the quiller opposite the head.

The fan gently cleans the traveling units as they pass and does not break the ends of fine filling.

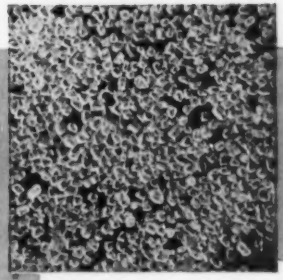
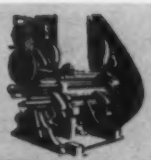


Photo of General Chemical's Superior Non Large Crystal Oxalic Acid; Slightly Enlarged.

CLEANERS—For auto radiator cleaners. For cleaning rust from railroad cars and buses.

LEATHER & FURS—Vegetable tanning of sole and upper leathers; also bleaching of furs.



TEXTILES—For removing rust stains. In development of color when printing. For removing soil or smears after aniline black printing.

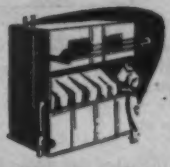
If you need

Large or Fine Crystal

OXALIC ACID

For These or Other Uses

Call on General Chemical



DYES—In dye manufacture.

PENTAERYTHRITOL—In manufacture of pentaerythritol which is used in making surface coating resins and explosives.

LAUNDRIES—For laundry sours and rust removers.

DRUGS—For manufacturing pharmaceuticals, antibiotics.

PLASTICS—As a polymerization catalyst or decolorizing agent.

CHEMICALS—For manufacturing oxalates and other chemicals.

Whether you require Oxalic Acid in a large crystal form for manufacture of auto radiator cleaners . . . or a fine crystal material for exacting process uses . . . General Chemical can "fill the bill."

Long recognized for its consistently high purity, General's Oxalic Acid is a clear, colorless crystalline product which assays a minimum of 99.5% $C_2H_2O_4 \cdot 2H_2O$. It is now produced in large and fine crystal forms to meet every requirement.

If you use Oxalic Acid and have never tried General's product, do so now. Learn why so many users always specify "General Chemical" whenever they order. For samples and further information, call the nearest company office listed below.

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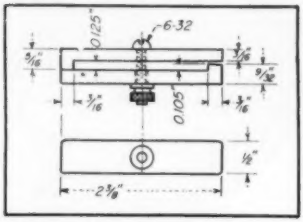
We Transfer Heddles With a Small Holder



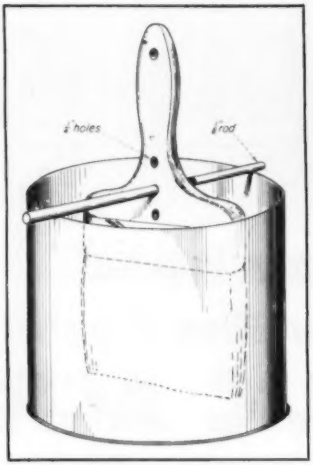
FASTEN THE HOLDER to the top of the heddles and move them to another harness. Then move the bottom of the heddles the same way.

We often transfer heddles from one harness to another on the loom to make small pattern changes in the cloth. It's easy to cross heddles and ends when you're moving, but it's hard to straighten them out.

We made a small holder to help us move heddles from one harness to another. The holder will move 50 or less heddles at a time to an adjacent harness.

The holder, made of hardwood, has a 6/32-in. screw firmly seated in the tapped back half. The front half has a clearance hold for the screw. Any type of wing nut or thumb nut may be used to tighten the holder to the heddles.

Now we can quickly change a cloth pattern on the loom. *Walter A. Simond, Essex Junction, Vt.*

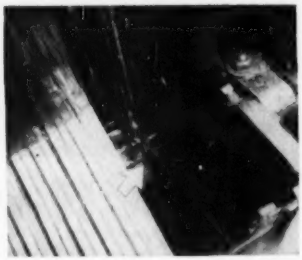


Holes in Handle Hold Paint Brush

THE BOSS PAINTER IN OUR MILL uses a simple little Kink that prevents the flattening or curling-up of paint brushes when they are left on the bottom of the paint or solvent can.

Three ¼-in. holes are drilled in the lower part of the brush handle, and a small rod is inserted. The rod is long enough to reach across the can. The three holes permit different depth cans to be used, and the brush can be submerged to the proper depth in the paint or solvent and still be out of contact with the bottom of the can.

Stop-Motion Cam Follower Is Braced To Prevent Wear



JUST TWO MINUTES is all the time it takes to bolt this brace to the loomside. The brace is made in the mill machine shop.

The cam follower on our side-fork filling stop motion used to wear at the pivot point and caused a lot of broken picks in our cloth.

We made a brace to guide the cam follower and put one on each of our looms.

The brace is made from a steel rod that should be of ⅜-in. dia. or larger. One end is bent to form a rectangular guide for the cam follower. The opening should be ⅛ in. wider than the cam follower.

The other end of the brace is bent to slip around a bolt in the loomside. The bolt head holds the brace in place.

Now that we have the braces on all our looms, we have little filling-fork trouble.

$500 for Best Kink in 1952 $25 for Best Kink Each Month

In Addition to Space Payment on Acceptance

You undoubtedly know many Kinks and Short-Cuts that are helpful to mill operators. Write them down and send them in. We pay promptly on acceptance—before publication. In addition, your Kink may win the $500 check for the best Kink of the year or the $25 check for the best Kink of the month; maybe both!

Send in your Kink now. There is always a contest going on. The more good Kinks you send in, the better your chances of winning a prize in addition to earning some easy money for every Kink accepted.

We will polish up your writing and will have an artist make finished drawings. But send in plenty of details so that your Kink can be clearly explained. Be sure your sketch is clear and well labeled, but it need not be a polished job. Best of all, send us a good glossy photograph of it—we will pay you extra if you do and we can use it.

Look over the Kinks in this and other issues. You will get ideas you can use as well as inspiration for Kinks you can send in. We like items that pertain to ways for improving machines, new devices that a mill man can build, attachments or methods of merit—anything that will cut costs, improve quality, or help production.

Your published Kink will be judged impartially by other mill men. In cases of ties, duplicate prizes will be awarded.

RULES OF CONTEST

1. No limit to number of entries.
2. New $25 prize contest every month, $500 prize contest for the year. Monthly contest confined to Kinks published that month, yearly to those published in calendar year 1952.
3. All Kinks paid for an acceptance; extra payment for photographs. Drawings need not be finished (clear detailed pencil sketches will do).
4. Previously published material not eligible for prizes.
5. Unless you advise to contrary, we assume we may sign your name to Kink when published.
6. Prize winners will be selected by readers, a different group each time. At least 200 will be asked to select preferred Kinks in each issue. Their votes will select the best Kink, and their decision will be final.

Send kinks to:
KINKS CONTEST, TEXTILE WORLD
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. . . of acetate rayon, nylon or mixtures of these, with or without cotton or viscose rayon, produces full white without fiber attack and permits full mote removal when bleaching cotton mixtures. Dye becks, jigs and similar equipment are used. Write for Becco Bulletin No. 44 or consult with Becco representative.

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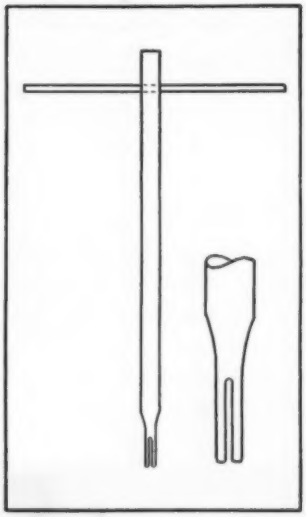
Kinks AND SHORT-CUTS

Knitters: Use This Tool Instead of Needle Pliers



IF A LOT OF WORK is required to dismantle a knitting machine before you can use your pliers, try this tool.

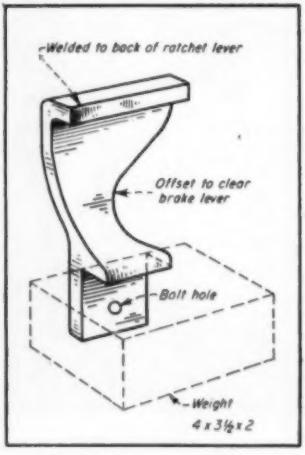
Needle pliers are the universal instruments for straightening or bending knitting elements—needles, sinkers, sliders, or pattern-jacks.

There are many types of needle pliers on the market, but there are instances when none of these types proves ideal. For instance, for small-diameter machines, it is sometimes particularly difficult to reach the knitting elements without dismantling certain units to create adequate space for the needle pliers to penetrate.

The simple tool shown in the adjoining sketches, when substituted for the conventional needle pliers, greatly facilitates operations in such cases. It is a straight piece of steel with a thin slot at one end and a hole, through which a handle is introduced, at the other end. The slotted part is filed down as shown. The thickness and length of the tool are in accord with the gauge and the special characteristics of the machine.

This tool is particularly suitable for the straightening of sliders and patterning-jacks on circular half-hose machines, but it may also be applied on other types of knitting machines.

Weight on Ratchet Levers Stops Thick Places in Cloth



IN JUST A JIFFY you can remove the capscrew and take off the weight when lighter fabrics are woven.

On cloth woven with full-automatic let-offs, we used to have a lot of thick-and-thin places in our medium-weight and heavyweight cloth.

We added a weight to the let-off ratchet lever.

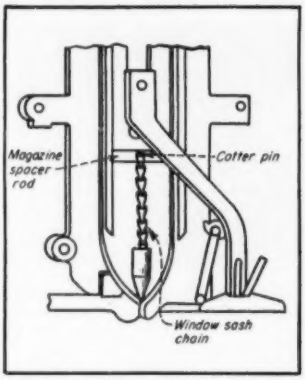
We had small castings made to form a hanger for the weight. The casting is welded to the back of the ratchet lever and is offset from the brake lever. A hole is drilled in the casting, and a weight is fastened to the casting with a 7/16x1¼-in. capscrew. The weight is bored and tapped for the capscrew.

The weight is 4 in. long, 3½ in. wide, and 2 in. thick. We had these weights in the warehouse.

When we run lightweight fabrics, we remove the capscrew and leave the weight off.

Our thick-and-thin places are fewer since we've added the weights. *Bernard Dixon, Danville, Va.*

Stop Broken Bobbins With a Plumb Bob



THE BOBBIN TIP can't rise because the plumb bob holds it down. You can save a lot of filling and bobbins this way.

We had a lot of broken bobbins (full ones) on our four-cell magazines at the transfer. A lot of full bobbins dropped to the floor or into the quill can, too.

We had our machine shop make a few plumb bobs to hold the bobbin tips while the bobbins are being transferred.

The plumb bob is made from a piece of 7/16-in. cold-rolled steel 2 5/16 in. long. The ¼-in. point is turned on a lay and is tapered back to ¾ in. from the end. The 4½-in window sash chain is welded to the blunt end of the plumb bob.

A ¼-in. hole is bored in the center magazine-spacer rod directly over the center of the outside giveways.

When a bobbin is being transferred, the end strikes the plumb bob and is held in a horizontal position.

Our bobbins do not break or fall out of the magazine since we added the plumb bobs.

Best-Kink Award for September

Each month TEXTILE WORLD awards $25 to the submitter of the Kink judged by a panel of over 200 practical mill men as the best for that particular month. A new batch of Kinks appears each month, and a new group of readers acts as judges each month.

If you are asked to judge one of these days, be sure to help select the best Kink by sending back your answer in time for final tabulation. Closing date for judging is the last day of the month in which the Kink appears.

The best Kink for September, according to TEXTILE WORLD reader-judges, was:

"Small Piece-Dye Machine Cuts Labor Cost in Half and Gives Better Results"

A. J. Olson, Milwaukee, Wis.

Mr. Olson is being sent a check for $25 with the compliments of TEXTILE WORLD

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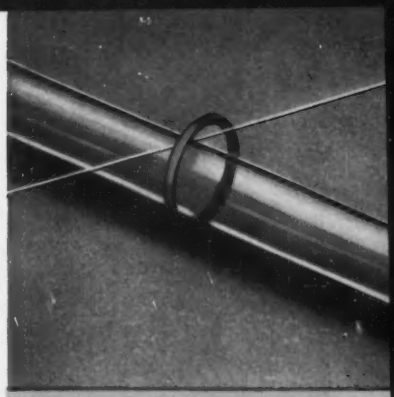
CERAMIC FLOAT RINGS

THOROUGHLY PROVEN BY ACTUAL EVERY DAY USE IN MORE THAN 100 LEADING HOSIERY MILLS



AlSiMag Float Ring Part No. GE-21501-A

HERE'S THE ANSWER TO YOUR YARN MOISTENING PROBLEMS:

Slip an AlSiMag Float Ring over the moistening trough float. Then thread the yarn through the ring above the float. It goes through at an angle. The travel of the yarn turns the ring, changing the wearing surface constantly. The bottom of the ring is in the moistening agent. As the ring turns, it brings moisture to the top. Yarn travelling at an angle through the ring automatically removes excess moisture. Since the yarn travels above the float, it can't cut the float. The level of the moistening agent can be kept quite low, minimizing splashovers.

AlSiMag Ceramic Float Rings are almost impossible to cut by yarn action. Surface wear simply exposes more of the same material. This reduces yarn damage, press offs, machine stoppages, and damaged hosiery.

• FREE TEST SAMPLES SENT ON REQUEST

- **Eliminate Float Cutting**
- **Give Better Yarn Moistening Control**
- **Reduce Machine Stoppages**
- **Minimize Splashovers**

51ST YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

CHATTANOOGA 5, TENNESSEE

NORTHERN AND EASTERN SALES ENGINEER: Jay S. Gosnell, American Lava Corporation, 671 Broad St., Newark, N. J., Mitchell 2-8159.
ALL OTHER AREAS: J. B. Shacklett, American Lava Corporation, Chattanooga 5, Tennessee, Phone LD-62.

Kinks AND SHORT-CUTS

We Permanently Tighten Our Dobby Floor Supports

A STEEL PLATE is bolted to the dobby floor support and glued to a piece of mounting pad at the same time the pad is glued to the floor. This setup gives a job that is permanently tight.

We used to tighten the dobby floor supports to the bottom-shaft bearing brace periodically. Loose floor supports caused the cylinder fingers to vibrate and the hooks to hang on the dobby knives and cause cloth defects.

We now use a steel plate to keep the floor supports permanently tight. The steel plate is ¼ in. thick and is wide enough to completely cover the feet of the floor support.

A ½-in. hole is bored in the steel plate in such a position that the holes are in line with the slots in the foot of the floor support.

A 7/16-in. loom bolt is inserted in each of the two holes in the steel plate. A piece of mounting pad is glued to the floor underneath the floor support, and the steel plate is glued to the pad with the bolt heads against the pad.

The floor support is tightened to the brace for the bottom shaft with the steel plate firmly pressed into the pad. The bolts have nuts placed on them to tighten the plate to the floor support.

We seldom have to tighten the floor braces now that we have them all set on steel plates.

We Repair Split Handrails

SCREW THE STRAP IRON over the split in the handrail, and that's it!

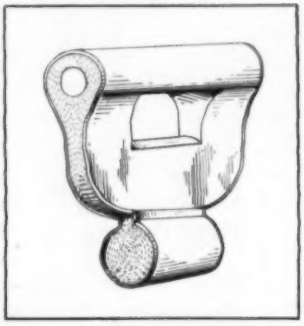
When we have a handrail that is split, we use a piece of strap iron to repair the cracked place.

The strap iron is 2 in. wide by 12 in. long. A hole is bored in the center of the iron, widthways, 1 in. from each end. The holes are countersunk to recess the head of wood screws.

The strap iron is placed over the split in the handrail and screwed into place.

Handrails repaired this way will last for a long time.

Beveled Drop-Box Pickers Will Run Better



GRIND THE PICKER so that the edges are slightly beveled if you want longer picker life and better cloth.

Drop-box pickers often hang on the picker guides and cause the shuttle box to hang. Picker sticks often break, and the shuttle boxes are bent out of alignment or are broken when the shuttle boxes hang. And filling sometimes hangs on the picker head and causes jerk-backs.

We bevel the edges of our pickers both at the shank and the head.

Since we've been beveling the pickers, we find that they last longer and in addition prevent jerk-backs and hanging of the shuttle boxes.

You must grind rubberized pickers carefully to eliminate burrs. *Bernard Dixon, Danville, Va.*

Broken Loom Crankshafts Are Rebuilt in a Jig

We occasionally have a loom crankshaft break. We used to buy new crankshafts to replace the broken ones, but now we save the broken crankshafts and make a complete crankshaft from two broken ones.

We built a jig on a long piece of channel iron. The jig is made of two stands and two loom bearings to hold the crankshaft. A new shaft was used to position the jig so that all rebuilt crankshafts must be perfectly aligned and must be of the correct length.

Most of the crankshafts break on the drive end, and we therefore have to machine a keyway in the repaired crankshaft when two head-end portions of crankshafts are made into one complete crankshaft.

We save several dollars on each crankshaft that we rebuild and find that the repaired ones give as good service as new crankshafts.

THE CRANKSHAFT JIG can be made in your own machine shop. One complete end of the jig is shown here. The other end is made exactly like this one.

We Double the Life Of Our Take-Up Rolls

The screw holes in the wooden take-up roll on a spring-needle knitting machine break out after a period of use. When the screws no longer hold properly, the usual practice is to turn the roll an inch or so and drive the screws in again.

After the screws have been relocated a few times, no unused room is left for driving in the screws; and the roll is discarded.

We have a method for getting longer service from our take-up rolls.

First, we drill out the old holes to cut away all the unsound wood. Then we put furniture glue in the new holes and drive in tight-fitting wooden pegs. The screws are then driven into these pegs.

We get double life from each set of holes. *Albert M. Young, Jr., Philadelphia, Pa.*

Here's a softener that has demonstrated its ability on a wide variety of urea and melamine-treated fabrics. It not only gives greatly improved sewability, but has excellent bath compatibility with these resins as well as with anionic and cationic finishing materials.

XYNO FINISH 9909

Try it!

A trial of Xyno Finish 9909 will convince you of its superior performance. Write for data sheet and let us know how much of this softener you want for test purposes.

was specifically designed for use with urea and melamine resin finishes. It possesses the following additional field-proved advantages:

- Extremely or highly resistant to yellowing at elevated temperatures
- Does not reduce light fastness of fabrics dyed with colors ordinarily susceptible to substantive softeners
- Excellent plasticizing action on resin finishes
- Does not inhibit the curing of resins

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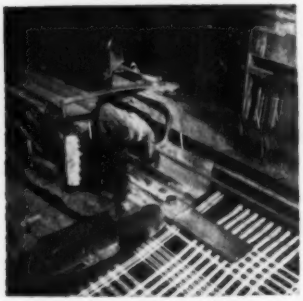
A Brush Stops Our Jerk-Backs



THE BRUSH is a portion of a loom duster. It must be set at an angle to the filling to prevent jerk-backs.

On fabrics that run two to four shuttles, we stop jerk-backs fairly well with a part of a loom duster or brush.

The brush holder is made from a strip of ¼-in. strap iron with two holes bored in each end on 1¼-in. centers. The first hole is ¼ in. from the end. The holes are countersunk so that they will recess the heads of wood screws.

One end of the strap iron is bent to 90°, and the piece of brush is screwed to the iron. The other end of the iron is screwed to the handrail at an angle to position brush 1 in. from the shuttle box.

The brush can be adjusted to the desired position by bending the strap iron.

This arrangement will not stop jerk-backs on all fabrics, but it works nicely on filling that is not difficult to handle.

We Stop Jerk-Backs With a Drop Wire

Our single-shuttle looms used to make a lot of jerk-backs on the lever end until we found a new way to stop them.

We now use a drop wire fastened to the lay to hold the filling on the lay.

A small strip of leather is cut and placed over the hole in the drop wire. The leather is placed flat on the front of the lay, parallel to the lay. A wood screw is put through the leather, through the hole in the drop wire, and into the lay. The solid end of the drop wire is perpendicular to and above the lay.

After the drop wire is fastened to the lay, it is covered with shuttle fur on both sides. The fur is glued to the drop wire in a single piece from the bottom around the top and down to the bottom on the other side.

Since the drop wire is flexible, it is not bent out of position when a weaver pushes a shuttle against it.

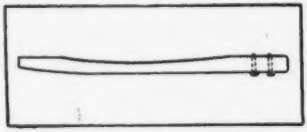
Few jerk-backs are woven into our cloth now. *Earle W. Thompson, Enoree, S. C.*

We Use Envelopes To Protect Negatives

Lots of pictures are being taken nowadays at our plant, and keeping the negatives used to be something of a problem. Scratches and fingermarks were making reprints of pictures look pretty sloppy.

We bought some transparent envelopes to put the negatives in. Sometimes we put just one negative in each envelope and can hold the whole thing up to the light for identification.

Looms Run Smoother With Improved Picker Stick



JUST A SMALL SECTION is cut out of the stick, but that's enough to give the stick a lot of whip.

At one time, we had a problem of broken picker sticks on the drop-box end of S-6 looms.

We licked this problem by making a hickory picker stick that we call the "forward bend." The new stick results in a smoother pick.

To make the stick, we cut out a portion of the wood on the front side. This gives the stick more "whip" and lets us reduce the power on the stick.

We also use lag screws to replace the regular rivets.

By making our sticks this way, we have added weeks of life to them and also have a smoother-running loom. *H. E. Linderson, Eastford, Conn.*

Analyze Your Laundry Costs

How much are you spending to have towels and rags washed? We found that we were spending too much, so we bought our own towels and rags, a washing machine, and a drier.

The only expenses we have from month to month now are soap and the labor to run wash through. The monthly savings, therefore, are very high.

When You Re-Level Looms, Don't Disturb Mounting Pad

JACK UP THE LOOM after you loosen the nuts on the bolts in the steel plate, insert a wooden shim, drop the jack, re-tighten the nuts, and the job is done.

We find that looms often get out of level. We like to keep them level because we believe that level looms perform more efficiently, but we used to spend a lot of time trying to keep up with them.

When we leveled a loom, we always had to break the glue from the floor and the mounting pad, and the pad was usually ruined.

We now use steel plates the same size as the loom feet. Holes of ½-in. dia. are bored for bolts, and 7/16-in. loom bolts are inserted in the holes. The steel plates are glued with the heads to the pad and the bolt shank through the loom feet. The pad is glued to the floor with the loom in the correct position.

Later the loom can be jacked up with a hydraulic jack, and wood shims can be placed between the steel plates and loom feet to level the loom when necessary. The nuts on the bolts will keep the loom tight on the pad.

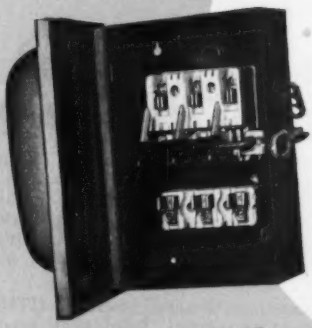
We are able to re-level our looms quickly since we have the steel plates under all the looms.

Spray Belt Dressing

We're not taking any more chances when we apply belt dressing anywhere there's a chance of getting hurt. Now we get the dressing in a spray container. And the new dressing is fireproof, waterproof, colorless, nonstaining, and nontoxic.

3 LINES OF SAFETY SWITCHES *for* 3 DIFFERENT MARKETS

...**one line can't do two or three jobs without compromising price and performance!**

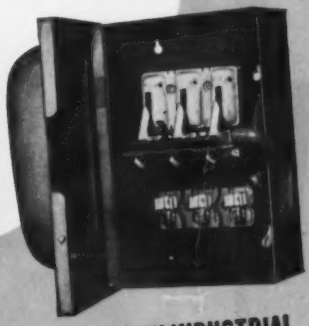


GENERAL PURPOSE

90,000 line designed for residential, commercial and other applications where price is limiting and the service factor is not great.

INDUSTRIAL

40,000 line designed for general industrial or institutional and commercial applications where the service factor is greater and price is an important consideration. MEETS BOTH GOVERNMENT AND NEMA SPECIFICATIONS FOR TYPE A SWITCHES.



HEAVY-DUTY INDUSTRIAL

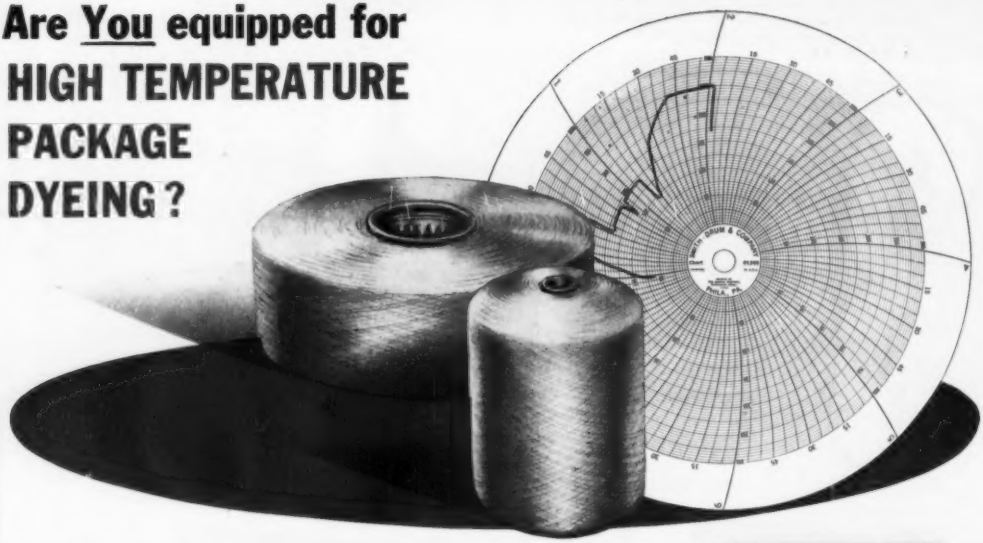
80,000 and 50,000 line designed for mass production industries where price is secondary to continued performance under conditions of severe service and maximum safety. The 50,000 line is used where space is limited. BOTH ARE TYPE A but go far beyond those requirements.

UNIFORM STYLING

ASK YOUR ELECTRICAL DISTRIBUTOR FOR SQUARE D PRODUCTS

SQUARE D COMPANY

Are You equipped for HIGH TEMPERATURE PACKAGE DYEING?



YOU ARE... if you have a SMITH-DRUM PACKAGE DYEING MACHINE!

Now that the advantages of high temperature dyeing have been generally recognized, every dyer must ask himself this question. The owners of SMITH-DRUM Machines built since 1939 are in the fortunate position to answer "yes"... since by replacing a single valve with one of another type, the change-over can be made. It's that easy! If your machine was purchased in the last 3 years, no change at all is necessary.

The reason appears on the little plate attached to each SMITH-DRUM Machine and reproduced at the left. Since 1939 every SMITH-DRUM Package Dyeing Machine has been built to these A.S.M.E. specifications and certified by the Hartford Steam Boiler Co. This more expensive construction was adopted at that time as a safety measure, since 205°F was the maximum temperature then used or contemplated.

This is another example of how SMITH-DRUM's extra quality "pays off"... why you should always insist on SMITH-DRUM equipment.

For added convenience and efficiency, high pressure sampling Kiers and high pressure dye feed buckets can be furnished for installation on existing SMITH-DRUM equipment or can be included in new SMITH-DRUM equipment.

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. . . OUTSTANDING TRADE LITERATURE reviewed on the next and following pages

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New Textile Equipment
New Dyes & Chemicals
New Useful Accessories
Editorial Articles
and the Advertisements

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. . . to send a Kink, a letter for Round Table, or a news note.

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Dear Editor: NOVEMBER, 1952

Please send me additional information on the following:

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F18 F19 F20 F21 F22 F23 F24 F25 F26 F27 F28 F29 F30 F31 F32 F33 F34 F35 F36 F37

F38 F39 F40 F41 F42 F43 F44 F45 F46 F47 F48 F49 F50 F51 F52 F53 F54 F55 F56 F57

NEW USEFUL ACCESSORIES Numbers U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14

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Outstanding TRADE LITERATURE *Free for the Asking*

NO REPEATS... Listed here for November are current bulletins reviewed by the editors of TEXTILE WORLD. To get the ones you need, circle the number on the Reader-Service card, as described on the preceding page.

TEXTILE MACHINERY

Knit-goods presser, a 12x72 buck for sweaters, skirts, blankets, etc., and a 24x60 buck for smaller garments, are described in a bulletin prepared by the Prosperity Co. (F-1)

A collarette cutter with roll attachment is the subject of a bulletin of Utica Novelty & Mill Specialty Co. The machine cuts tubular-knitted cloth the stretchy way as fast as the operator can handle the machine. (F-2)

Sciss-o-matic electric scissors said to cut a smooth, straight edge are described in a bulletin of Ginsberg Machine Co. Trimming time is said to be reduced 50%. (F-3)

Twisters for every need, built to individual specification, are offered by Haskell-Dawes Machine Co., Inc. (F-4)

Printing, finishing, and dyeing equipment is shown in a booklet put out by L & W Machine Works. A print machine, soaper, winding machine, and two dye paddors are specifically covered. (F-5)

A bias collarette and strip-cutting machine is the subject of a bulletin prepared by J. A. Firsching & Son, Inc. Width changes are accomplished in a matter of seconds. (F-6)

A steam board for blocking knitted garments or steaming cloth is described in a bulletin by U. S. Hoffman Machinery Corp. The size is 24x60. (F-7)

AUXILIARY EQUIPMENT

An edge-position control that automatically positions moving webs is the subject of a bulletin by Askania Regulator Co. The web is controlled by a stream of low-pressure air, and there are only two moving parts in the control for ease of maintenance. (F-8)

Pallets and more pallets are the subject of a booklet prepared by National Pallet Corp. The pallets are designed to handle specific jobs by experts on palletization and are constructed of moisture-controlled hardwood to give the least amount of warpage and splitting. (F-9)

An electronic motor-drive control that provides timed-rate acceleration and deceleration is described in a bulletin by Reliance Electric & Engineering Co. The control is pictured in operation on a stacker. (F-10)

A controller for temperature, pressure, flow, pH, conductivity, and other process variables is discussed in a bulletin of The Foxboro Co. The controller comes in eight basic types: single action, dual, duplex, auto-selection, ratio, relation, pneumaticset, and time schedule. (F-11)

Psychrometers for testing the moisture in textiles and the humidity in the mill are described by Kearny Mfg. Co., Inc. A variety of contact parts are available for testing bales, fabrics, warps, skeins, etc. within a 0.5% tolerance. (F-12)

An electronic-scanning system that monitors up to 270 temperature points is described in a bulletin by Minneapolis-Honeywell Regulator Co. The system signals a deviation from the correct operating temperature. It has an independent set point for each bank of nine points. (F-13)

A hydraulic-cylinder bulletin of Miller Motor Co. gives complete engineering, design, construction, mounting, and dimensional data for its complete line of square-design cylinders for 1,000 to 3,000 psi. (F-14)

Motors, dripproof and splashproof squirrel-cage induction motors in ratings from ½ to 100 hp., are described in a bulletin prepared by Allis-Chalmers Mfg. Co. (F-15)

Case histories of Life-Line motors are presented in a booklet prepared by Westinghouse Electric Corp. Actual applications in the textile industry as well as other industries are described. (F-16)

An oven can be yours in days instead of months if you install packaged electric radiant panels, it is said in a bulletin of Edwin L. Wiegand Co. Textile applications are in drying, dehydrating, and slashing. (F-17)

A static detector is featured in a bulletin on vacuum-tube electrometers prepared by Keithley Instruments. It will locate charged bobbins. (F-18)

Liquid-level gauges and gauge illuminators are discussed in a bulletin of Jerguson Gage & Valve Co. Special designs can be made to fit individual requirements. (F-19)

Electric-control industrial thermometers for controlling the temperature of drying ovens are described in a pamphlet published by Minneapolis-Honeywell. The thermometers are available as indicators or recorders and are of the pressure type. (F-20)

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Reader Service (Continued)

SUPPLIES AND CHEMICALS

Slashing cotton warps is the subject of a pamphlet put out by Morningstar, Nicol, Inc. **(F-21)**

Use sodium? A bulletin prepared by National Distillers Chemical Co. discusses a new highly reactive form of metallic sodium. A typical sodium-dispersion formulations are given. **(F-22)**

Use caustic soda? All phases are covered, from technical data to the treatment of caustic burns, in a booklet published by Dow Chemical Co. **(F-23)**

Workhorse beams for textile yarns are the subject of a bulletin by T. E. Watson Co., Inc. These beams are constructed of industrial Masonite bonded to waterproof plywood. They are said to be lighter than wood and slightly heavier than aluminum but stronger than either. **(F-24)**

Spindles for spinning and twisting cotton, rayon, nylon, woolen, and worsted yarns are described in a bulletin of Marquette Metal Products Co. The spindles have roller bearings, said to require up to 30% less power than plain-bearing spindles. The four basic types of spindles are treated separately. **(F-25)**

Natural-rubber latex is the subject of a bulletin by Testworth Laboratories, Inc. Did you know there are three types of concentrates: cream, centrifuged, and evaporated? **(F-26)**

Solvay products are described in a booklet prepared by Allied Chemical & Dye Corp. According to a chart in the booklet, textile plants use 12 of the 19 products described, including Nytron, a new synthetic wetting-agent detergent. **(F-27)**

Hydrogen peroxide in a 35% solution called "Albone" 35 is discussed in a bulletin prepared by E. I. du Pont de Nemours & Co., Inc. Bleaching cotton by the continuous and Kier processes, bleaching wool, and the oxidation of vat dyes are covered in the bulletin. **(F-28)**

A new hosiery tray is described in a bulletin by C. R. Daniels, Inc. Twenty doz. or more stockings can be transported safely and easily from knitting to steaming or seaming, it is said. The tray is carried like a suitcase. **(F-29)**

Naphtol AS-DB for dyeing rayon and cotton to brown shades is discussed in a bulletin by General Dyestuff Corp. Samples of dyed yarn and fabric are mounted in the bulletin. **(F-30)**

Fastusol Orange RRL-CF for dyeing rayon and cotton is discussed in a bulletin of General Dyestuff Corp. Samples of cotton, rayon, and a cotton-wool union are mounted in the bulletin. **(F-31)**

GENERAL

"Facts in Figures about Atlanta" is the title of a booklet compiled by the Industrial Bureau, Atlanta Chamber of Commerce. All aspects of the city from health to water meters are included in the pamphlet. **(F-32)**

Communism in unions is discussed in a pamphlet prepared by General Electric Corp. This pamphlet contains a statement made before a Senate subcommittee on labor and labor-management relations. It includes a program urged by GE for elimination of potential traitors from positions of power or influence in unions. **(F-33)**

Personality factors in executive development are discussed in a folder prepared by the Harold F. Howard Co. Selection of executives and executive-development programs are discussed. **(F-34)**

The principles of optical gauging are discussed in a new publication prepared by Eastman Kodak Co. The more recent developments in the technique of using optical projection as a production tool are discussed. **(F-35)**

Orlon in men's and women's apparel is discussed in booklet prepared by the Textile Fibers Dept., E. I. du Pont de

Now is the time to *modernize*

HUMIDIFICATION

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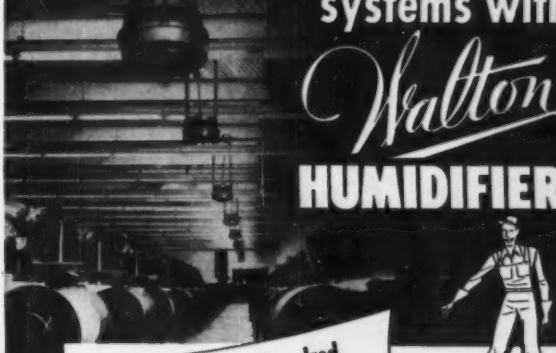
HUMIDIFIERS



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Platecoils heat faster than pipe coils because they have more prime surface in a given area. A 22" x 47" Platecoil has the same heat transfer surface as 32 feet of 1½" pipe which occupies approximately 30" x 60" of space. Platecoils' faster heating coupled with their unusually low maintenance cost give 50% savings in space and material resulting in faster heat transfer for heating or cooling problems for approximately 50% of the normal cost. It costs you nothing to see what Platecoils will do for you. Write for complete data on your problem today.

Your free copy of the Platecoil technical data manual is available when requested on your letterhead. Write for Bulletin No. P32

Reader Service (Continued)

Nemours & Co., Inc. The booklet discusses the fabric qualities that can be expected from Orlon fiber. **(F-36)**

Need a punched-card accounting machine? A use-purchase plan is discussed in a pamphlet of Remington Rand Inc. The installment plan offers a monthly charge lower than the rental fee, and you own the machine after 100 months. **(F-37)**

A portable dispenser for hot or cold beverages is described in a bulletin prepared by Vacuum Can Co. The dispenser is constructed of stainless steel; and when it is filled, its weight varies from 28 to 114 lb., according to the model. **(F-38)**

Boxes, packages, and cartons are described in a bulletin prepared by the Package Laboratory of The Hinde & Dauch Paper Co. A special patented corrugated paper is used in the construction. **(F-39)**

Machines for marking tags, tickets, bank books, time cards, etc., are described in a pamphlet by American Numbering Machine Co. **(F-40)**

ENGINEERING & MAINTENANCE

Handling equipment for textile materials is described in a bulletin prepared by Sunray Co. Doff trucks, lap trucks, cloth trucks, battery-filling trucks, pin trucks, cone trucks, dollies, and dumping machines are specifically mentioned. **(F-41)**

Corrosion in motors and controls is discussed in a booklet prepared by Westinghouse Electric Corp. Shock vibrations and hazardous locations are also discussed. **(F-42)**

Pumps and portable mixers are described in two bulletins prepared by Eastern Industries Inc. The mixers have high or low speeds and single or dual propellers. The pumps discussed are of the single-stage and multistage centrifugal type. **(F-43)**

Pallet-return rates in the Central States region were lowered recently by an ICC decision. The unit-load shipping technique is the subject of a booklet prepared by The Baker-Raulang Co. **(F-44)**

Casters and hand trucks are the subject of a publication prepared by The Rapids-Standard Co., Inc. Steel, rubber, and plastic types handle up to 3,500 lb. **(F-45)**

Insulation maintenance is discussed in a booklet prepared by The Magnesia Insulation Manufacturers Assn. The association points out that the need for maintenance may result from normal wear and tear, from failure to replace damaged insulation, or from routine equipment maintenance work. **(F-46)**

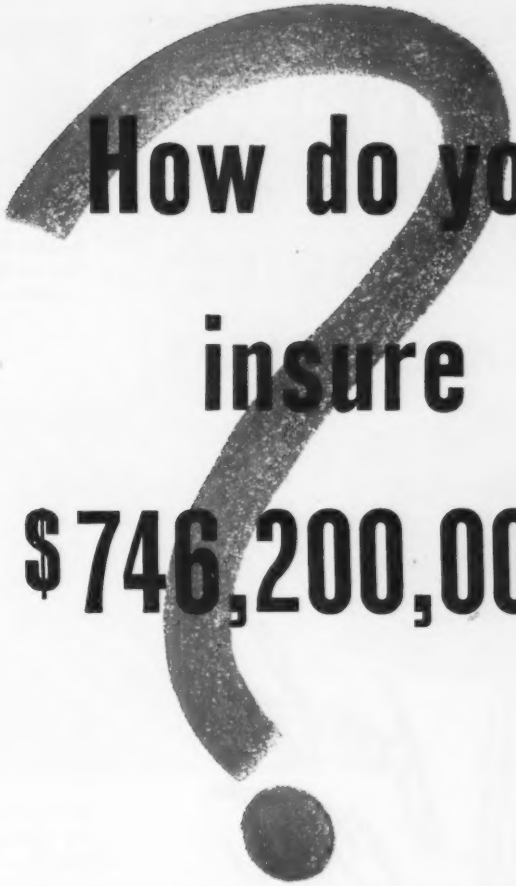
Steam-plant equipment is described in a pamphlet prepared by Yarnall-Waring Co. Low-, medium-, and high-pressure blow-off valves, water columns and gauges, liquid-level indicators and recorders, expansion joints, steam traps, strainers, and spray nozzles are specifically covered. **(F-47)**

Fans and blowers for every requirement are described in a catalog prepared by Chelsea Fan & Blower Co., Inc. A section is included on how to select and install the proper fan. **(F-48)**

Planning to lay any kiln-dried hardwood flooring? The Maple Flooring Mfrs. Assn. has prepared a bulletin of suggestions for the installation and care of Northern-hardwood flooring. **(F-49)**

Electric fork-truck operation is the subject of a bulletin prepared by Lewis-Shepard Products, Inc. This bulletin features a fork truck that was designed for plants facing problems of lack of space and limited floor-load capacity. **(F-50)**

Get that SCRAP Back to WORK!



How do you insure $746,200,000?

The whole textile industry would like to know the answers to that question...because they spent $746,200,000 on textile mill modernization last year!

While we don't have all the answers, here's one good way of insuring that part of the investment that was spent on machinery . . . and a very simple way, too! JUST ADOPT THE COMPLETE LINE OF CITIES SERVICE LUBRICANTS FOR YOUR OPERATION.

Cities Service Lubricants...specifically designed for the textile industry...are top insurance against costly wear and parts failure. With these quality products you're assured of cleaner machine bearings and shafts, and cleaner finished goods, too. With them you can keep friction, due to gumming and power load, down to the barest minimum . . . KEEP PRODUCTION AT MAXIMUM.

Why not use Cities Service as the single dependable source for lubricants exactly suited to your operation? Test them by turning over your most stubborn lubricating problem to a Cities Service Lubrication Engineer. He wants to help you. He can help you. Simply write CITIES SERVICE OIL COMPANY, Dept. K-38, Sixty Wall Tower, New York City 5.

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FORK LIFT TRUCKS

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Stand-up & Sit-down Models

2,000, 2,500, 3,000, and 3,500 capacities on 15" load center. 63", 72", 83" Masts. Special Masts to Order.

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2730 San Pablo Ave., BERKELEY

Books of Interest

British Text Fills Narrow-Weaving Gap

NARROW FABRIC WEAVING, by A. Thompson and Sigfrid Bick; Harlequin Press Co. Ltd., Old Colony House, S. King St., Manchester 2, England; cloth, 252 pages, 12 s. 6 d. or $2.25.

There has been a real need for quite some time for up-to-date source material on the weaving of narrow fabrics. This compilation of technical data was written by the head of the textile department at Derby Technical College in collaboration with a narrow-fabric technician, and so it is practical enough for both the beginner in the field and for mill reference work.

The first half of the book is elementary enough. It takes up, with pictures and sketches, the weaving of plain cotton tape, twills, satins, double satins, rayon ribbons, and double-woven fabrics. The more involved techniques in the weaving of tubular edges, ribbons for special purposes, jacquard fabrics, fancy edges, pile surfaces, elastic webs, braiding, and trimmings are each given a well-documented chapter in the last half of the book.

Frequent pattern designs, the usual index, and a brief history of narrow weaving round out this work nicely.

OTS Report On Flameproofing

FUNDAMENTAL STUDIES OF CHEMICAL RETARDANTS for the Fire-Resistant Treatment of Textiles, PB 111,007, by the Office of Technical Services, U. S. Dept. of Commerce, Washington 25, D. C.; mimeographed, 308 pages, $7.50.

This 308-page report presents results of a 3-yr. research project carried on at Columbia University for the Army Quartermaster Corps. It includes a number of fundamental studies into the physical phenomena that occur when cellulosic materials are burned, and the processes by which various chemicals prevent this burning action. This basic knowledge has recently enabled the textile industry to produce for the Quartermaster Corps flame-resistant-treated textiles lighter in weight and more flexible than those available during World War II.

Among significant findings are these: (1) Flame-rate measurements support the theory that the lower the tar formation on combustion, the greater the resistance of the fabric to flaming. (2) The greatest efficiency in decreasing the rate and amount of tar formation is exhibited by mixtures of borax and boric acid. (3) A variation of less than 1% in "add-on" can mean the difference between a fabric that flames and one that doesn't. (4) It is evi-

WHY ARE FIBRE GLASS SUPER-HEATERS

SUPERIOR FOR HEAT-SETTING NYLON?

FACTS TALK

No method, no system, no machine is comparable to the Fibre Glass Super-Heater for heat-setting Nylon fabrics.

Answer:

LEAST RESIDUAL SHRINKAGE.

We think good residual shrinkage is this: **Less than 1% shrinkage in both directions on Nylon tricot.** If you can get such results on tricot, you'll not have to worry about results on woven goods, spuns, nets and laces.

Answer:

NO YELLOWING OF WHITE GOODS.

"Yellowing" of white goods is a common fault of many convection systems. The black radiant heat of the Fibre Glass Super-Heater never yellows white Nylon. Our many customers proudly claim to have the whitest white goods on the market. They have!

Answer:

NO CHANGE ON DYED COLORS.

Many mills prefer to heat-set Nylon after dyeing and save handling costs. This is usual procedure with users of Fibre Glass Super-Heaters, because black radiant heat has no discernible effect on dyed colors—not even the delicate pastels on tricot. And glossy blacks remain glossy black.

Answer:

FAR SUPERIOR "HAND."

Some mills get a poor "hand" because their cloth touches heated metal. Why put a **hot iron** on a synthetic fibre? Heat-set the cloth on the delivery end of your tenter or drier with Fibre Glass Super-Heaters in tandem with the drying operation.

SILL INDUSTRIES
185 MAPLEWOOD AVENUE, MAPLEWOOD, N. J.
distributor for
INDUSTRIAL RADIANT HEAT CORPORATION

representatives in
NEW YORK • CHARLOTTE • CHICAGO
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Controlled Pressure

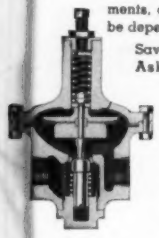
for efficient operation

Clark Pressure Reducing and Regulating Valves

are precision-made for positive pressure control on air, gas or steam lines.

Where different types of equipment, with varying pressure requirements, are operated from a common line, Clark Regulating Valves can be depended on to deliver automatically the "just right" pressure to each.

Save on fuel, maintenance and protect expensive equipment. Ask your Clark representative to specify the right Clark valves for your needs . . . or write us direct.

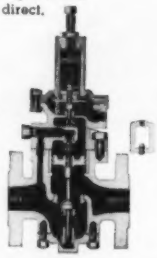


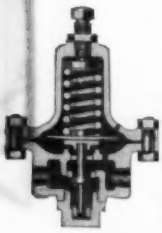
TYPE KRV

Pressure Reducing Valve. Diaphragm Operated-Single Seated Valve. Sizes ½" to 1½" for initial pressures up to 250 P.S.I. Reduced pressures to 85 P.S.I.

TYPE CRV

Pressure Reducing Valve. Integral pilot controlled, piston operated. For pressure control from "dead end" to full capacity. Sizes ½" to 6".





TYPE ORV

Pressure Reducing Valve. ⅜" and ½" Single Seated, Spring Loaded, Diaphragm Actuated. For initial pressures to 250 P.S.I. Reduced pressures to 200 P.S.I.

QUICK-CLEANING STRAINERS

Remove dirt, scale and grit from steam, fluid and gas lines. Sizes ½" to 3" I.P.S. For pressures to 250 P.S.I.

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dent that the permanency of a given flameproof fabric is directly related to its permanent ability to produce only slight amounts of tarry combustion products after scouring and extraction processes such as water leaching and detergent laundering.

The 3-yr. research presented thus in all its detail should prove valuable to mills wrestling with fire-retardant problems.

ILO Report On Foreign Wages

TEXTILE WAGES. An International Study; International Labor Office, 1825 Jefferson Place, N. W., Washington 6, D. C.; paper, 126 pages, 75¢ or 4 s. 6 d.

Textile men seeking facts on the disparity in textile wages among the various countries of the world should obtain a copy of this well-documented booklet.

An effort is made first to establish the facts as to "money" wages in different countries. The textile-wage data are then reduced to an hourly basis and expressed in a common currency (U. S. dollars) to permit international comparison.

Another chapter relates these figures to cost-of-living data from each country to make up as valid a comparison as can be found of relative "real" wages. The significance of differences in money wages as a factor in international textile competition is discussed, with a conclusion that differences in labor costs (second to raw materials in importance) may also to some extent be offset by differences in other cost elements—such as interest charges, costs of fuel and power, and freight charges. Productivity per manhour is also cited as important.

Twenty-nine tables and a reference index give adequate details on the 33 countries covered.

Handy Reference On Water Treatment

INDUSTRIAL WATER ANALYSIS BOOK, by E. F. Drew & Co., Inc., 15 E. 26th St., New York 10, N. Y.; paper, 57 pages, $1.

This factual book on water analysis describes various chemical tests, but it can also be used with benefit by nontechnical operators and non-chemists.

Covered in detail are boiler-water sampling, expressions of results, test equipment and general water analysis. Special tests for versenate hardness, dissolved oxygen, total solids, steam purity by conductance, and corrosion tests are also outlined.

Other Books of Interest

MODERN TEXTILE AUXILIARIES, Thomas Skinner & Co. Publishers Ltd., 44 Brazennose St., Manchester, England; heavy paper, 200 pages, $7 or £2.

Fifteen hundred textile-chemical products listed and described by trade name and manufacturer.

1953 HANDBOOK OF MATERIAL TRADE NAMES, Industrial Research Service, Masonic Bldg., Dover, N. H.; cloth, 1001 pages, $20.

Over 15,000 trade-name materials, ranging from abrasives to zeolites, listed and described.

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BOGER & CRAWFORD

SPUN NYLON YARN!

The quality of Boger & Crawford yarn is guaranteed—the highest tribute we can pay it.

SIGNED *Frederick Boger*

"SWING" is in the air!

. . . to Boger & Crawford spun nylon yarn! 60/2 and 80/2 ply.

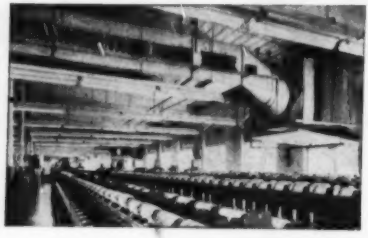
Ideal for weaving and knitting! Sweater . . . skirt . . . stockings . . . by "courtesy" of B & C spun nylon yarn! Available in 20 wonderful fast colors. Color fastness equal to or better than Synthetic Fiber Test #1 and #2 AATCC.

Write for free samples of colors today!

BOGER & CRAWFORD

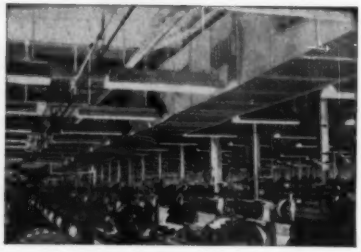
K & E. Venango Sts. • Philadelphia 34, Pa.

Certified Climate – 1952



Automatic Airchanger with Gradumatic Humidification

Central Station alone—or with Gradumatic Boosters—or with Refrigeration



Gradumatic Humidification

All with Gradual Acting Psychrostat Regulation

Engineering, Manufacturing, and Installing by Parks-Cramer Company

Centralized Responsibility

Specialists in Textile Mill Humidification and Air Conditioning Since 1906

Parks-Cramer Company

Fitchburg, Mass. Charlotte, N. C.

PARKS Certified Climate

Mill Maintenance

It's Important To Clean Your Air Washers

Cleaning is the most important part in the servicing of air washers. The complete air washer should be thoroughly cleaned and serviced at scheduled intervals.

In cotton mills, cleaning of screens will be the largest part of a maintenance program. The cleaning schedule should be set up after it is determined just how often the screens become clogged. Clogged screens will decrease the efficiency of the air washer, but excessive time should not be spent in cleaning screens that are only partially clogged.

Build a Lint Screen

When air washers are installed in a mill, particularly a cotton mill, several screens of wire cloth are placed on a structural-steel frame to prevent lint from entering the washer. This lint screen will not do a thorough air-cleaning job, but it does catch a lot of lint that would otherwise enter the washer.

The lint screen should be cleaned before it becomes clogged enough to reduce the amount of air that reaches the fan. A weave-room screen can be cleaned if it is washed with a hose. In spinning rooms, the screen is easily cleaned with a stiff, dry brush.

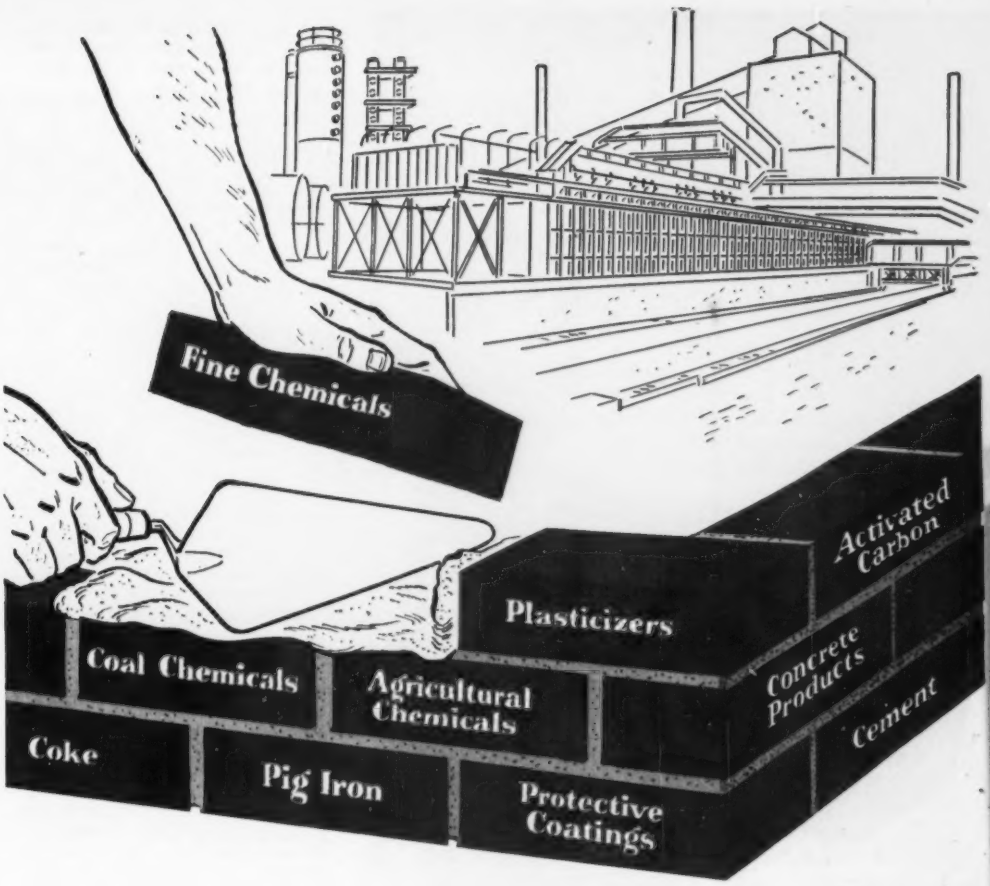
Clean the Suction Screen

The suction screens must be cleaned frequently enough to keep the water level sufficiently high over the suction pump to eliminate suction of air. If the pump-discharge pressure fluctuates greatly, the water level is usually too low and air is drawn into the pump.

When the washer is first started after it is assembled or after it is thoroughly cleaned, the water in the tank will be relatively clean and the suction screens will not clog rapidly.

If the washer operates for long periods without being cleaned, a lot of dirt will accumulate in the tank and the suction screens must be cleaned frequently. To clean a suction screen, lift it out of the washer and wash off the dirt with a hose. Occasional scrubbing may also be necessary to remove the dirt.

Clean the washer tank at least once



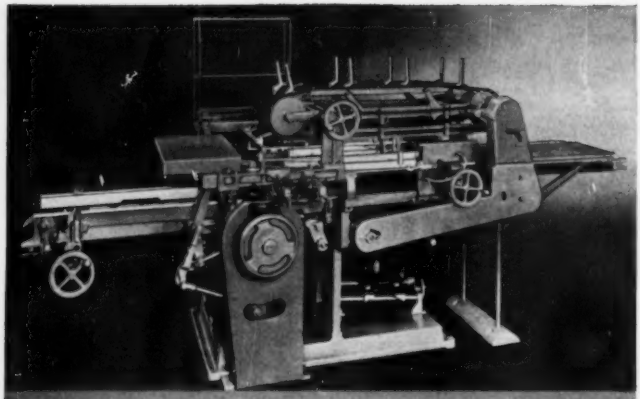
Building to a Basic Plan

THE Pittsburgh Coke & Chemical Co., through its recently formed Fine Chemicals Division, will soon offer the textile industry a broad family of high quality dyestuffs.

The production of dyes fits ideally into our basic and integrated operation in two important ways. First, we are already producing the intermediates from which a great many dyes are made. And second, our basic position enables us to closely control and maintain the high quality and purity of Pittsburgh Dyestuffs *from coal to finished colors.* This guarantee of quality will be backed by another *basic* advantage—assurance of prompt shipments and continuing supplies. In dyestuffs, as in the products of our other integrated divisions, it will pay you, in every way, to *buy basic . . . buy Pittsburgh.*

PITTSBURGH
COKE & CHEMICAL CO.

WBD 4230



Model FA Wrapping Machine, made by PACKAGE MACHINERY COMPANY, Springfield, Mass.

-they say:

"We recommend This Lubricant to Our Customers"

"We have found LUBRIPLATE Lubricants to be very effective and use them extensively in our machines."

"To assure the proper use of LUBRIPLATE Lubricants for re-lubrication, we place tags on our machines before shipment. Thus the purchasers of those machines know the LUBRIPLATE Product we recommend for each application and where to obtain it."

The Package Machinery Company of Springfield, Massachusetts is among the earliest users of LUBRIPLATE Lubricants. They use them for original lubrications because LUBRIPLATE Lubricants arrest progressive wear and add longer life to moving parts. They recommend them for re-lubrication to preserve the efficiency of the machines, to reduce power costs and minimize service work and parts replacement.

LUBRIPLATE Lubricants are available from the lightest fluids to the heaviest density greases. There is a LUBRIPLATE Product best for your every lubrication need. Write for case histories of the use of LUBRIPLATE in *YOUR* industry.

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Fiske Brothers Refining Company
Newark 5, N. J. Toledo 5, Ohio

DEALERS EVERYWHERE . . . CONSULT YOUR CLASSIFIED TELEPHONE BOOK

LUBRIPLATE *THE MODERN LUBRICANT*

each week. To clean the tank, completely drain the water from it and wash the entire inside of the spray chamber with a hose.

Check the Nozzles

While the tank is empty, check the spray nozzles to see that they are not stopped up. If the nozzles are not operating properly, remove the cap and thoroughly clean the nozzle.

Remove the eliminators and baffles from the washer at least once each year to clean all parts that come in contact with water. Paint all parts other than materials that are non-corrosive.

Control Algae Growth

If the tank is cleaned every week, the growth of algae in the tank itself will be arrested. But algae will often grow between the eliminators, where it cannot be easily reached. Several companies that specialize in water treatment have nonvolatile compounds that they claim can be added to the washer tank to prevent algae growth. These compounds are said to have no destructive effect on the equipment.

Eliminate Corrosion

In some localities, slight concentrations of gases in the air combine with spray water to produce a corrosive acid condition. In other locations, the water may contain small quantities of dissolved solids. Even though the concentration of this dissolved material is very slight in the make-up water, a large quantity of water is continually being evaporated and the concentration of this dissolved material may become very high. When this condition occurs, this dissolved material may be deposited as scales in the nozzles, in the pipe lines, and on the interior of the spray chamber.

In such cases, the concentration of the undesirable elements may be kept within reasonable limits if the float valve is adjusted so that a small amount of water is constantly wasted through the overflow.

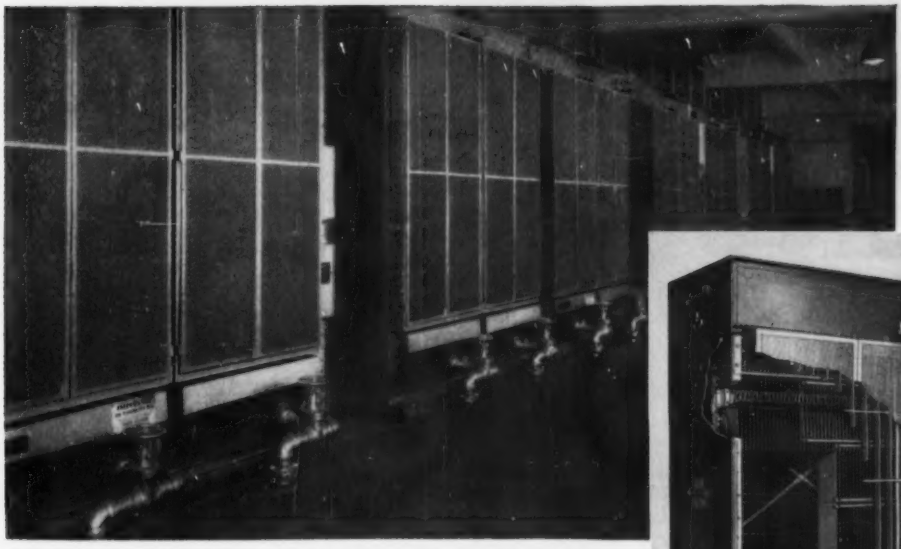
Water treatment with suitable chemicals will also help reduce scales.

After the spray chamber has been cleaned, use the quick-fill valve to fill the tank to within ¼ in. of the overflow outlet and set the float valve to hold the water level at this position.

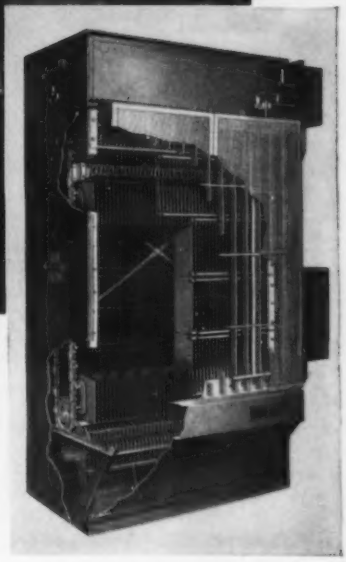
Inspect Coils and Dampers

If direct-expansion coils are installed inside the spray chamber, or if heating coils are installed immediately beyond the discharge end of the air washer, dirt and algae growth will accumulate. Inspect the coils each

where clean air is essential



One of many types of American Air Filter equipment suitable for textile mill service, the ELECTRO-MATIC precipitator features fully automatic, self-cleaning operation.



Cutaway of Model E ELECTRO-MATIC.

AAF *Electro*-MATICS

cut operating costs...
improve quality control

Fully Automatic Precipitator Eliminates Costly Shut-downs

Conditioned air is essential in textile manufacturing—especially for thread drying, yarn dyeing and other critical processes where temperature and moisture-content must be exact.

In over 100 textile mills throughout the country, AAF ELECTRO-MATICS are providing super-clean air for the central air conditioning systems which service these important phases of production. Self-cleaning, the ELECTRO-MATIC assures a constant flow of dust-free air in these systems at all times.

This modern, fully-automatic, electronic precipitator offers highest cleaning efficiency over a wide range of particle sizes—from smoke to large air-borne material. And because of this high degree of efficiency, rigid product quality control is possible.

Reduced maintenance man-hours, improved employee efficiency, no unnecessary shut-downs—these are some of the benefits AAF ELECTRO-MATICS assure . . . benefits which contribute to lower over-all operating costs.

If you want further information on this modern precipitator—or information on other AAF equipment—contact your nearest AAF representative . . . or write American Air Filter Company, Inc., 304 Central Avenue, Louisville 8, Kentucky.

American Air Filter
COMPANY, INC.
304 Central Avenue, Louisville 8, Kentucky

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®AAF

Inside Story of *Fullergript* Popularity on Cotton Cards

Brushes remove lint and fiber from card flats. Therefore, you keep an eye on your card brushes. Worn tufted brushes fail to perform efficiently and when these old original brushes wear down, or the tufts drop out, that's when you think of brush replacement.

When brush replacements are required, many mills switch to *Fullergript*. This brush strip can easily be secured to the old core. Other mills order the strips from us and fasten them to their own cores... why don't you?

Why do *Fullergript* strips give longer life, plus a more thorough cleaning job? Because the brush material is anchored in a steel channel, in a dense continuous strip... with more brush ends (over 5,000 to the sq. in.) to remove the fibers between the card tines.

If your mill hasn't yet switched to Fullergript, write us for detailed information. Won't you please tell us the type of card, the length and diameter of your core, and whether you prefer right* or left-hand spiral brushes?

* Illustration shows right-hand spiral.

Fuller BRUSH CO. *At home... in business, too*

THE FULLER BRUSH COMPANY • INDUSTRIAL DIVISION • 3594 MAIN STREET • HARTFORD 2, CONN.

Wet and Dry Mops, Brooms, Waxes and Polishes, Floor and Special Brushes

time the washer is cleaned and wash out any accumulation of foreign material.

Heating coils are often installed over the bypass openings and also in branch ducts. Inspect and clean these coils regularly.

At regular intervals, and especially at a seasonal change-over, check all dampers and their linkage to be sure that they are responding to the control mechanism. Oil all the bearings on damper blades frequently.

The inspection and cleaning of the air washer will mean efficient operation of your entire air-conditioning system. **The Bahnson Co. Winston-Salem, N. C.**

1952 Commitments

(Continued from page 109)

The Industry Is Alert

The population of the United States has increased about 6,000,000 over the 151,000,000 people cited by the census of 1950 (April 1). This figure will be even higher next year. Many mills keep an eye on the baby population and plan accordingly. Other mills chart the longer-term trends for use in future years as these babies come along into maturity.

Other factors that stimulate confidence among progressive mills that have their over-all costs down to where they should be and that maintain a quality product are (1) lower raw-material prices that appear to be in the offing, (2) the assured continuance of our American system of government contracts going to the most efficient producer, and (3) the rapid tax-amortization concessions that were granted this year.

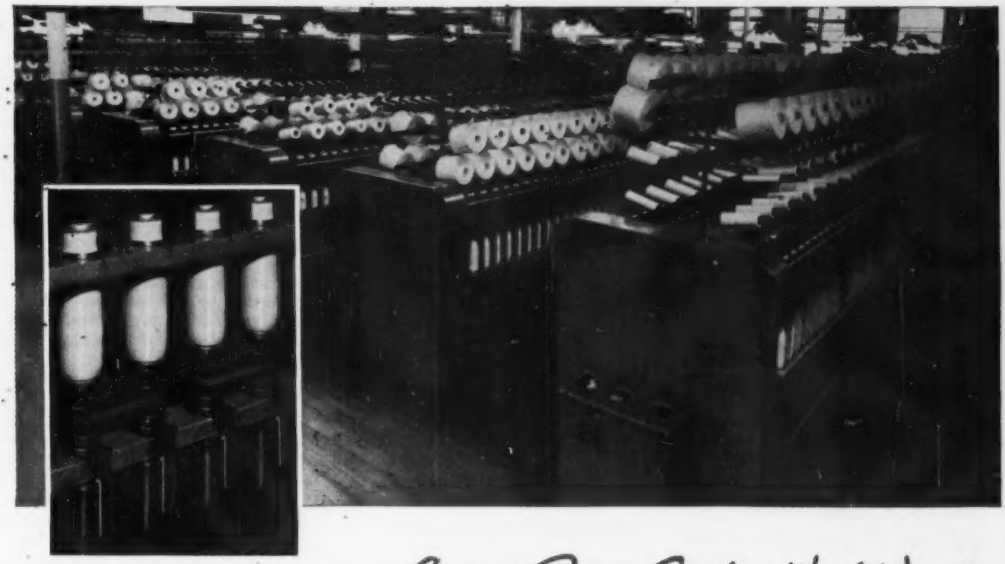
Rapid Tax Amortization

Many alert mills working on government contracts, such as cotton duck, for example, were granted the right to spread their equipment-amortization costs in bigger chunks each year, usually over a 5-yr. period instead of the usual 15 or 20 yr. Such mills will be in an excellent competitive position in the years to come.

Increased production of synthetic fibers themselves was stimulated also by Defense Production Administration certificates of necessity that were granted several fiber producers. Although fiber producers cannot be considered as being in the same category as textile mills, their increased production-to-be will affect all mills sooner or later. A production rate of 400,000,000 lb. of noncellulosic fibers,

Marquette ROLLER BEARING SPINDLES

with FULL-FLOATING FOOTSTEP BEARING



FOR ALL TEXTILES... *Cotton·Rayon·Nylon·Wool·Worsted*

As the result of a series of tests in this mill, several thousand Marquette Roller Bearing Spindles have replaced plain bearing spindles. Furthermore, Marquette Spindles have been specified on new frames.

Compared with the spindles previously used, power consumption has been reduced 29%. And because these Marquette Spindles are operated at a higher speed, production has been increased 15.6%.

You too can get *more yarn at lower cost* by using Marquette Roller Bearing Spindles. We'll be glad to prove this through a test installation in *your* mill. Contact our home office or one of our representatives.

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Also Manufacturers of: HYDRAULIC GOVERNORS • FUEL OIL PUMPS • PRECISION PARTS AND ASSEMBLIES
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • FUEL OIL INJECTORS

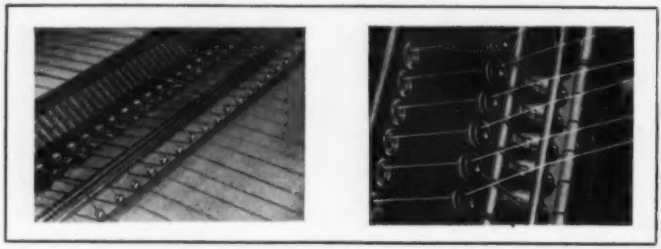
NEW SUPER SENSITIVE STOP MOTION . . .

STANDARD EQUIPMENT ON

Mc BRIDE MAGAZINE CREELS

Available Separately for Existing Creels

AND OTHER EQUIPMENT



New McBride Super Sensitive Mercury Switch Stop-Motion.

Standard McBride Sealed Mercury Switch Stop-Motion.

● This new McBride super sensitive Stop-Motion incorporates a sealed mercury switch completely eliminating possible failure due to accumulation of dust, dirt or lint.

Designed especially for operation with extremely light yarns, such as 15 denier nylon, this Counter-Balanced Stop-Motion provides instant operation on any yarn. However, for a creel where heavy yarns will be run exclusively the standard McBride Sealed Mercury Switch Stop-Motion is also available. These two units give positive action for yarns of all weights and types.

Other McBride products:

The McBride Universal Cone Holder

The Double Post disc type tension unit

The new McBride Vertical Creel

A complete line of beams and rolls

A new plastic faced plywood section beam flange

Look to McBride for the best in warp preparatory equipment.

Mc BRIDE

EDWARD J. McBRIDE COMPANY, INC.

1410 ADAMS AVENUE

PHILADELPHIA 24, PA.

from nylon through X-51, is seen by 1956.

Material Shortages

During the year, the government's Controlled Materials Plan (CMP) ran into trouble as a result of the lengthy steel strike. During the third quarter, textile-machinery manufacturers were allowed to use only 81% of the steel, 68% of the copper, and 69% of the aluminum they would have liked to use. Consequently, knitting-machine manufacturers, for example, were cut back as high as 30% or more in their production schedules.

Other machinery firms did not publicize the extent of their cut-backs.

The question had not been settled in Washington as this report was written as to just how much of a "necessity" fourth-quarter textile-machinery production was. In all events, such new equipment was ordered by mills immediately as they felt the necessity for it, not as CMP saw the "necessity." Third-quarter ordering in some cases about kept up with deliveries.

Ordering of textile machinery was expected by machinery men to pick up further by this month and next. Backlogs are still heavy in some plants —backlogs of orders for the most efficient types of machines.

Over-all Picture

In total textile-mill expenditures and commitments, the year 1952 is the third highest in U.S. history, surpassed only by 1951 and 1950. What 1953 will hold for the textile industry cannot, of course, be predicted with any degree of certainty. Too many outside factors—such as the business climate after November 4th, military developments in Korea, and tax-load and inflationary and credit policies of the new administration—will affect the future programs of American industries.

Many mills are looking for decreased earnings at the year's end as a result of the textile slump during the first half. Improved third- and fourth-quarter business frequently will not be considered enough of a reason for "further equipment investment at this time."

Mills calculating thus will be admitting a weakness in their position competitively. Other mills will continue to reinvest in long-range modernization programs and will become more and more dominant. Lower competitive prices will then more frequently bring them the nod in increased orders and increased prosperity.

Mills Must Modernize

The price of mill obsolescence is slow decline and eventual liquidation. The constant improvement of plant is

For Improved, Profit-Making Blends Providing Longer Useful Wear-life and Better Shape Retention . . .

TRY DYNEL!

YOU GET THESE PROVED, PROMOTABLE ADVANTAGES:

WITH COTTON

From 25% to 50% of DYNEL retains the original loft and warmth of cotton blends after repeated washings. Cotton improves the ironability of DYNEL; DYNEL helps stabilize the cotton to laundry shrinkage. In addition, DYNEL greatly improves the wrinkle resistance of cotton blends, and helps them to hold their shape when wet or damp.

WITH RAYON AND ACETATE

25% to 30% of DYNEL markedly increases the strength of rayon and acetate fabrics, and boosts their usable wear-life. It increases abrasion-resistance *without causing pilling.* In addition, DYNEL gives these fabrics greater loft and wrinkle resistance, and makes them retain their shape and press, even when wet.

WITH WOOL

The stress-strain curve of DYNEL is such that percentages as low as 15% add considerably to the strength of woolen and worsted fabrics, resulting in wear as well as higher tear strength and longer wear without pilling. In concentrations approximating 40% DYNEL also imparts washability, wrinkle resistance at high humidities, low shrinkage, and shape retention even after washing. All these advantages are obtained with full retention of warmth and traditional hand.

. . . AND YOU CAN GET THESE PLUS FACTORS AT A RELATIVELY LOW COST!

The commercial advantages of DYNEL blends with rayon, acetate, cotton, wool, and other fibers have been proved. Write for further information.

Performance will tell . . . IT'S DYNEL

TEXTILE FIBERS DEPT., CARBIDE AND CARBON CHEMICALS CO., A DIV. OF UNION CARBIDE AND CARBON CORP. UCC 30 E. 42 St., N.Y. 17, N. Y.

Heim

Unibal

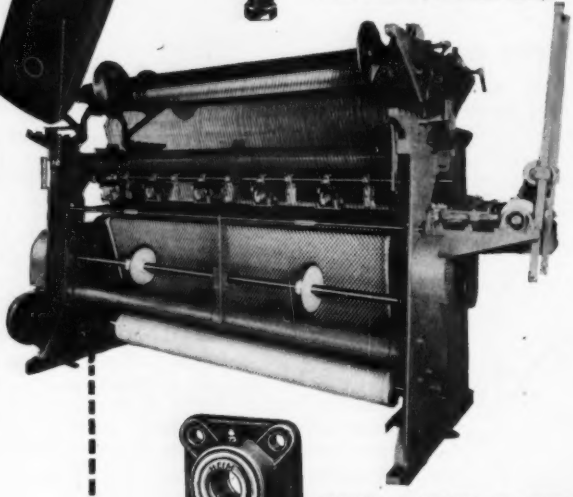
SWEEPSTICK

SAVES . . . time and money.

ELIMINATES . . . Elongated stud holes, readjustment of power stroke, uneven pick action, and resulting kinks and loops in cloth.

HEIM Unibal SPHERICAL BEARING . . . The single ball construction of the Heim Spherical Bearing permits correction of shaft misalignment in all directions and carries heavier radial and thrust loads.

HEIM Spherical Bearing ROD END . . . Wherever power and motion are to be transmitted at odd and varying angles, these rod ends are more dependable, more efficient, and less costly.



ROLLER BEARING FLANGED UNITS . . . Also made in self-aligning ball bearing types.

BALL BEARING PILLOW BLOCK . . . Also made in roller bearing types.

Bearings and Sweepsticks for the Textile Industry.

THE HEIM COMPANY

FAIRFIELD, CONN.

a low price to pay to stay in the running. And the cure-all for the less efficient plants is not punitive governmental intervention or regulation in favor of the less efficient unit or region (and comparative size has little to do with this problem), but the cure-all instead is the obtaining for yourself of a wide-awake management that can build up a really modern mill to compete with any in the world at any time.

Greenville Show

(*Continued from page 167*)

design of the pressed-steel enclosing cover is slightly different for each type of mounting. The motor is less than half the size of the conventional motor and weighs less than comparable-horsepower motors by approximately 30%. Polyphase motors are available from ¼ to 10 hp.

▶ **A shuttle-truing machine** that standardizes angles, thicknesses, and heights of shuttle points in box-loom work was a new machine on display at the booth of H. J. Theiler Corp., 22 Ashmont Ave., Whitinsville, Mass. The machine polishes shuttle points, machines the wooden points and backs of shuttle boxes, cuts grooves and slots in shuttles and reed frames, and planes, drills, grinds, and polishes in general.

▶ **A reinforced socket** for an 8-ft. slimline fixture that withstands the vibrations in weave rooms was shown by Sylvania Electric Products, Inc., 1740 Broadway, New York, N. Y.

▶ **A nonfluid, high-pressure grease, D1487,** for lubricating the Diehl drive used on Draper looms was shown by New York & New Jersey Lubricant Co., 292 Madison Ave., New York, N. Y. The grease is recommended for all Draper looms using the Diehl drive.

▶ **The Spartan truck** with reinforced corners riveted to heavy cross girders was highlighted by Continental-Diamond Fibre Co., Newark, Del. A heavy angle-iron base holds a heavy oak base. Casters of cast iron, or rubber-tired roller bearings are furnished with the truck.

▶ **Dies, taps, drills, files,** and most of the other tools that are needed in the maintenance of the modern textile plant were shown for the first time by T. M. Welborn Co., P. O. Box 3175, Greenville, S. C. The tools are tungsten carbide. Industrial diamond wheels, saws, glass-cutting, and other tools were also shown.

Radial Band Cutter Eliminates Banding by Hand

A steel radial band cutter that prepares seals on baling bands at the rate of 100 per 5 min., to be used in conjunction with the company's friction-seal method

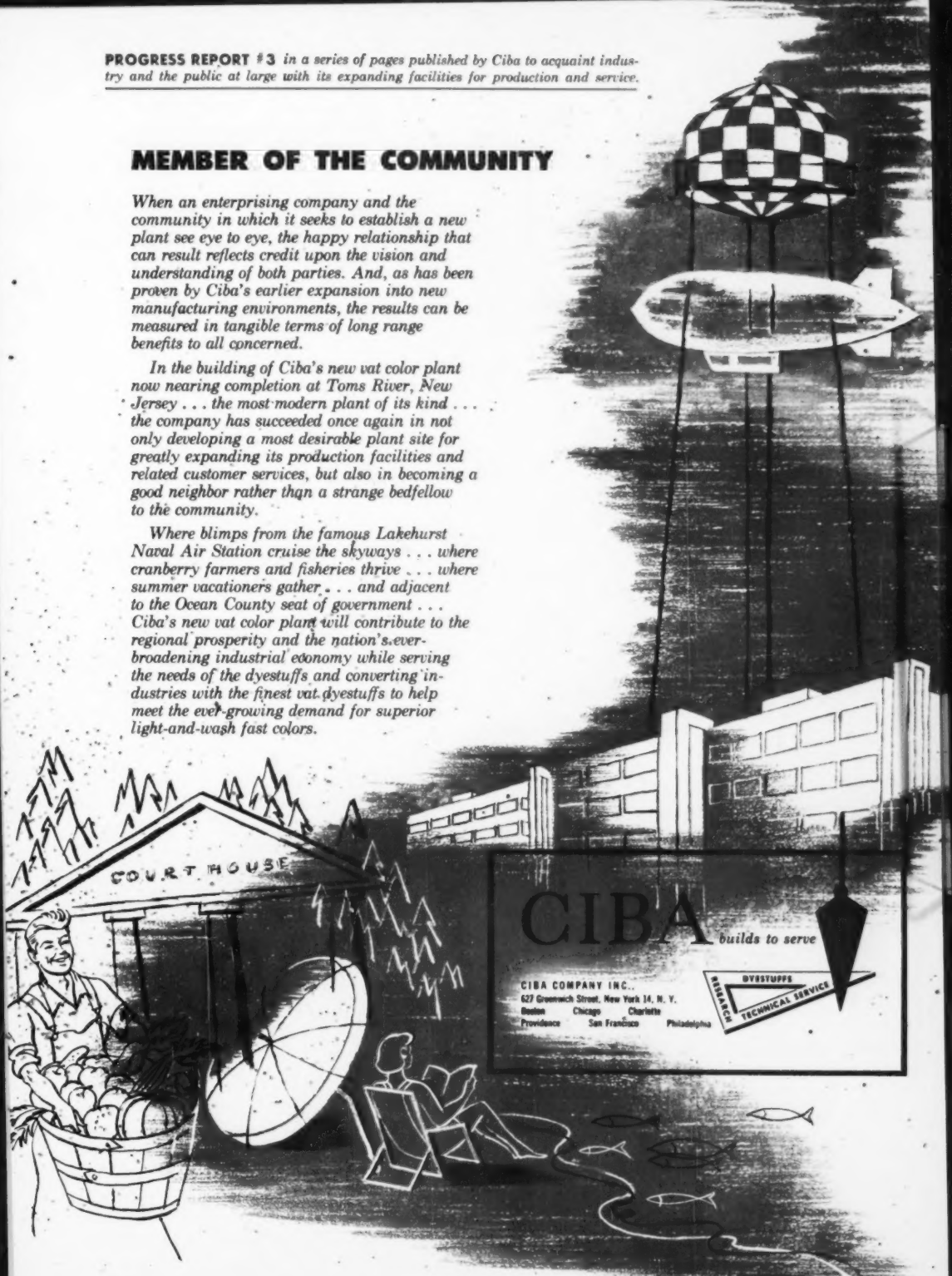
PROGRESS REPORT #3 *in a series of pages published by Ciba to acquaint industry and the public at large with its expanding facilities for production and service.*

MEMBER OF THE COMMUNITY

When an enterprising company and the community in which it seeks to establish a new plant see eye to eye, the happy relationship that can result reflects credit upon the vision and understanding of both parties. And, as has been proven by Ciba's earlier expansion into new manufacturing environments, the results can be measured in tangible terms of long range benefits to all concerned.

In the building of Ciba's new vat color plant now nearing completion at Toms River, New Jersey . . . the most modern plant of its kind . . . the company has succeeded once again in not only developing a most desirable plant site for greatly expanding its production facilities and related customer services, but also in becoming a good neighbor rather than a strange bedfellow to the community.

Where blimps from the famous Lakehurst Naval Air Station cruise the skyways . . . where cranberry farmers and fisheries thrive . . . where summer vacationers gather . . . and adjacent to the Ocean County seat of government . . . Ciba's new vat color plant will contribute to the regional prosperity and the nation's ever-broadening industrial economy while serving the needs of the dyestuffs and converting industries with the finest vat dyestuffs to help meet the ever-growing demand for superior light-and-wash fast colors.



Specify CLOTH FAST

YELLOW GW

Cloth Fast Yellow GW produces pure yellow shades with good fastness to light and very good all-round fastness properties on wool, silk and nylon. It also . . .

1. Possesses good tinctorial properties.
2. Levels well.
3. Yields dyeings with very good fastness to washing.
4. Has very good affinity for wool whether applied in an acid or neutral dyebath.

Acetate and viscose rayon effects are reserved when applied in an acid bath and mixed fabrics of wool and nylon are uniformly dyed. Cloth Fast Yellow GW is recommended for . . .

1. Dyeing loose wool intended for lightly fulled goods.
2. Dyeing of yarn and piece goods as well as for unions and nylon.

It is suitable for application printing and for producing dischargeable ground shades.

BRILLIANT RED 3BW

Cloth Fast Brilliant Red 3BW produces economical brilliant red shades with good all-round fastness on wool, silk and nylon. Because of its wet fastness properties and brightness it should be of particular interest to the raw stock dyer faced with dyeing reworked stock. The dyeings are . . .

1. Fast to carbonizing.
2. Stable to chrome.
3. Are not affected by prolonged boiling.

This product can be used for shading chrome colors and its very good fastness to chlorine makes it suitable for use on carpet yarns. Cloth Fast Brilliant Red 3BW is readily soluble and has very good affinity for wool when dyed neutral. Acetate and viscose rayon effects are reserved in neutral dyeing as well as from an acid dyebath. It also has good affinity for nylon from a slightly acid bath.

Cloth Fast Brilliant Red 3BW is suitable for . . .

1. Application printing on wool and silk.
2. Producing ground shades for colored discharge printing.

CIBA COMPANY INC.
627 Greenwich Street,
New York 14, N. Y.
Boston Chicago Charlotte
Providence San Francisco Philadelphia

CIBA

of baling, was exhibited by Acme Steel Products Div., Acme Steel Co., 603 Stewart Ave., S.W., Atlanta, Ga.

Hand-cranked wheels feed the band from a coil, through a seal that has fallen into position by gravity and weight, to any desired length. The seal magazine accommodates a clip of 100 seals.

Stepping on the foot lever below cuts the band with rounded ends and crimps it on both sides of the seal so that the seal will stay in place before and after the other band end has been slipped under it in preparation for final friction sealing.

The band is automatically ejected from the cutter on release of the foot lever.

▶ **Attachments, tools, and accessories** for the company's line of lift trucks were shown by Hyster Co., Box 847, Danville, Ill.

▶ **A small-sized overhead monorail conveyor system,** called the Junior Monoveyor, was demonstrated by Wrenn Bros., 4701 Pineville Rd., Charlotte, N. C. Rollerveyor, Wheelveyor, and power-belt models were also shown.

▶ **Two-color labels** for boxes can be printed on the Model 126C labeling unit shown by Markem Machine Co., Keene, N. H. Boxes can also be marked directly on their ends. Elimination of fabric- or paper-label inventory is possible for mills by means of a fast type-changing arrangement. Maximum size of the two-color imprints is 2x3 in.

▶ **The Model 21 Speedweigh,** a high-speed and -accuracy scale sensitive to $\frac{1}{32}$ of an ounce and weighing up to 20 lb. was shown by Toledo Scale Co., Telegraph Rd., Toledo, Ohio.

▶ **Short-cut statistical methods** of quality control were offered in a new adding-calculator that was featured at the booth of Monroe Calculating Machine Co., Inc., Orange, N. J. With the machine, the usual quality-control work sheet is eliminated. Only a standard type of control chart is now necessary, with headings and spaces for necessary information concerning the job, machine, operator, etc. The results produced in the calculator are plotted directly on the chart.

▶ **Locking casters** with "Flex-Sorb" wheels have been added by Up-Right Scaffolds, Berkeley 10, Calif., to its own equipment. The new wheels provide solid-wheel rolling characteristics with shock absorption greater than pneumatic tires of equivalent size.

Miller Shows New Series Of Single-Lamp Equipment

A new series of single-lamp fluorescent equipment, the TAS series, was displayed by The Miller Co., Meriden, Conn. The fixture features a concentrated Alzak aluminum reflector and was designed for in-

Guides to...

HIGHER PROFITS

ARE MADE FROM

"LINDE" SYNTHETIC SAPPHIRE

Trade-Mark

By using sapphire at critical points in your equipment, you can cut yarn reject losses and maintenance costs to a surprising low. Sapphire has three properties that make these savings possible: (1) It takes and holds a high polish; (2) It's homogeneous (non-porous)—can't fray yarns; (3) It resists wear and corrosion remarkably well.

More and more technicians are changing over to sapphire textile guides to protect the quality of their yarns. More and more producers find that their yarns "drag" less over sapphire guides than over any other guides they have ever used. A large rayon spinner reports *twelve years* of trouble-free service from sapphire guides in locations where other guides failed in a *few months*. It all adds up to higher output, better quality, and lower cost per pound of yarn.

"Linde" synthetic sapphire materially increases the life of your guides. Let us show you how. We'll be glad also to help you with the design and testing of standard or special sapphire guides for your plant.

Write today to the Synthetic Crystals Department.

LINDE AIR PRODUCTS COMPANY

A Division of Union Carbide and Carbon Corporation

30 East 42nd Street UCC New York 17, N. Y.

The term "Linde" is a registered trade-mark of Union Carbide and Carbon Corporation.

For more information, write direct or use Reader Service post card.

Over 1,500,000 Spindles

EQUIPPED WITH REGNERY ADAPTERS

The Regnery Aluminum Spindle Adapter has been established as a standard for the industry

Because Your present spindles can be easily converted for sleeve type spinning.

Because The tried and proven conventional type of standard base, bolster and spindle with a wonderful record in many mills of 20 years or more of low cost operation and maintenance has a larger package and improved spinning with the Regnery Adapter.

Because Conventional spindles with Regnery Adapters balance out any other paper tube spinning in the mill.

Because A standard spinning bobbin can be used throughout the mill when filling spindles are converted with Regnery Adapters for use on a rewind operation.

THESE ARE THE ESTABLISHED FACTS!

1. More yarn per bobbin.
2. A smoother spinning unit.
3. Less ends down with better quality work.
4. Less waste in spooling operations.
5. A more uniform traverse.
6. A trouble-free, permanently "locked in" spindle and adapter.
7. A saving in doffing and spooling costs.
8. Lower bolster replacement costs.

LOWER YOUR PRODUCTION COSTS with REGNERY *ALUMINUM SPINDLE ADAPTERS*

Modern TOP drive adapters for the tapered or parallel bobbins can be installed in your mill quickly and easily to your specifications.

CONCENTRICITY IS OUR BUSINESS
Write for Descriptive Folder

F. L. REGNERY CORP.
Spindle Adapters · Production · Engineering
613 WEST 16TH STREET • CHICAGO 16, ILLINOIS

spection work and panel-board lighting. The series will be available after Jan. 1.

A new Socketbox for two-lamp fixtures, shock- and vibration-proof, was also shown by The Miller Co. A single socket can be replaced, and a center knock-out permits easy addition of a third lamp.

▶**A new spiral hand reamer,** Model 25, was introduced by The Ridge Tool Co., Elyria, Ohio. The reamer is said to provide a smooth, easy, and efficient operation in the ½- to 2-in. range.

▶**A new accounting machine,** called the Sensimatic, was shown by Burroughs Adding Machine Co., 6701 Second Ave., Detroit 32, Mich. Featuring low price, great flexibility, simplicity of operation, compactness, and speed, the machine handles (1) payroll and distribution, and (2) accounts receivable and payable. The company also showed its Style P402 adding and subtracting machine as a companion machine for the Sensimatic. The P402 can carry several totals and can also figure in credit balances.

Materials Handling

(*Continued from page 126*

center or load capacity, can be increased or decreased as the need requires.

These improved engineering changes result in the following basic variations in the Model 20:

(1) The standard 200-lb.-capacity model at 15-in. load center is now available at 24-in. load center.

(2) Available is a new skeleton counterweight that will be installed on order at the factory to replace the standard counterweight and reduce the weight of the truck by 600 lb.

(3) Also made possible by redesign is the ability to bring the lightweight Model 20 up to standard capacity of 2,000 lb. at 15-in. load center by the addition of the same optional 3-piece additional counterweight previously described.

Thus, three basic variations make possible at least six different combinations in the same model truck.

•

▶**A new-style cradle** for use with fork trucks and for horizontal storage of drums and barrels has been developed by McKinney Wood Products Co., P. O. Box 249, Canton, Ga. One or two drums can be moved or placed in the tier at one time. Openings are provided to permit forks to enter for moving both barrels at one time.

•

Drum Up-Ender Stacks or Pours From Drums

An economical hydraulic drum up-ender attachment that permits a fork-truck operator to pick up, transport, stack, and empty heavy drums without leaving his seat has been developed by Baker-Raulang Co., Industrial Truck Div., 1250 W. 80th St., Cleveland, Ohio. Drums can be rotated 90° for vertical or horizontal stacking or tilted 45° below horizontal for emptying at any height within the lift

Celanese* Acetate

the fiber with the *well-balanced* performance characteristics

In an age of specialization, it is natural enough that many new textile fibers are developed, specifically to excel in some one special way.

Yet for most applications—for most end uses—the best fabrics require high *average* performance in many respects.

That is the essence of acetate's success in the textile field. It is an excellent fiber in each respect. For instance, acetate has:

- **good dimensional stability**
- **wonderful hand, fine loft**
- **cross dyeing versatility**
- **excellent wrinkle recovery**
- **resistance to moths and mildew**
- **thermoplasticity for pleats and moires**
- **uniformly good supply**
- **a very competitive price**

And acetate's outstanding asset . . . its ability to enhance the beauty of any fabric in which it is used.

So in designing new fabrics and planning production—whether it be shantung type suitings, light weight cords, or dress crepes—consider all the performance angles, and see if acetate doesn't come closest to filling the bill.

Celanese Corporation of America, New York 16.

Celanese*

*Reg. U. S. Pat. Off. **ACETATE, one of the world's great textile fibers**

You Need Burlap! We Have it!

and here are 4 reasons why Bemis is Your Best Burlap Source . . .

1 You Benefit from Our Large Operations

Bemis is the largest burlap importer. Whatever the supply situation, Bemis customers are in the most favorable position.

2 You Benefit from Our Knowledge of Quality of Burlap

For many years, producers and users alike have accepted Bemis' grading of Indian burlap as the standard for the industry.

3 You Benefit from Our Knowledge of the Burlap Market

We follow the market daily in our regular operations.

4 You Benefit from Bemis' Large Facilities

Sixteen plants and seventeen additional sales offices, all strategically located, assure you a dependable source of supply.

Bemis is headquarters for all grades and weights of burlap . . . including widely-used 10-oz., and the popular, special-finish Angus, which only Bemis imports.

Bemis

Baltimore • Boise • Boston • Brooklyn • Buffalo • Chicago
Charlotte • Cleveland • Denver • Detroit • Indianapolis
Houston • Jacksonville, Fla. • Kansas City • Los Angeles
Louisville • Minneapolis • New Orleans • New York City
Memphis • Norfolk • Oklahoma City • Omaha • Phoenix
Philadelphia • Pittsburgh • Salt Lake City • San Francisco
St. Louis • Selma • Seattle • Vancouver, Wash. • Wichita

range of 2,000-, 3,000- and 4,000-lb. Baker fork trucks.

The attachment consists of shoes that are "pinned" to the forks of the carriage. Mounted on the shoes are pivoted rubber-faced grab plates that clamp around the drum and hold it firm. The up-ending operation is accomplished through a hydraulic cylinder mounted on one of the shoes. Operation of the hydraulic cylinder builds up pressure in an actuating accumulator mounted above it, which is used to return the drum to an upright position.

•

Drum-Moving Unit Simplifies Chemical Handling

The "Drumobile," which safely lifts full drums, with or without cover removed, and transports them from place to place, has been put on the market by Kist Machine Co., Inc., 1001 East Ferry St., Buffalo 11, N. Y. When the device is placed around the drum or barrel and the handle is shoved downward, the full drum or barrel is easily raised off the floor. The unit will handle up to 850 lb.

•

Practical Line of Trucks Offers Ease of Handling

Special spooler dump truck, for bringing yarn to the spooler and for taking away empty quills, eliminates lifting of boxes.

Cheese truck eliminates the use of cheese boards at the twister. Yarn is at all times within easy reach for creeling without bending over.

Welded warp truck has a steel top frame that lifts off with the warp when direct overhead lifting is needed in narrow alleys.

Trident truck is designed for transporting Barber-Colman spooler cheeses to warpers or twisters. It has 10-in.-dia. side wheels.

The 216 pins on a new truck replace the pin board ordinarily used in doffing twisters running on synthetic yarns. Mobility is its greatest asset.

Patented lift truck, originally designed by Deering-Milliken, enables one man to cap, strap, stencil and packing-slip up to 100 heavy cartons in 8 hr.

The trucks described above are available from J. C. Paddock Co., S. Church St. Ext., Spartanburg, S. C.

•

Overhead Cable Conveyor Cuts Handling Costs

An overhead trolley conveyor that combines efficient design for both increased production speed and space saving has been perfected in a mill installation in South Carolina by E. W. Buschman Co., Clifton and Spring Grove Ave., Cincinnati 32, Ohio.

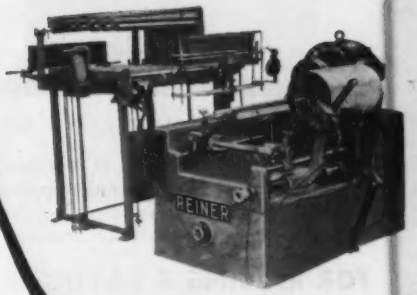
The overhead cable conveyor is of all-bolted construction that makes it easy to change around when necessary. Trolleys are placed on 12-in. centers. Standard wheels can support 80 lb. and double-duty wheels can support 160 lb. per trolley. Idler turns and vertical "S" curves are available as needed.

Drive units of 250- and 500-lb. pulling

MAGAZINE CREEL

A PERFECT TEAM

—designed to meet the need for speed, quality and economy—the very essentials for perfect production.



SECTIONAL WARPER
Model SW-24 with Yarn Storage Device

REINER CREELS*—Magazine, Single Type, Truck or Special Duty—are of the most modern construction, meeting all requirements, suitable for all yarn packages including nylon pirns. Available with mercury contact, electrical drop lever and loom type (drop heddle) stop motions, balloon control, variable pin disc tensions to serve all possible mill needs, from the finest to the coarsest yarns. Many other features are described in our creel catalog—yours for the asking.

REINER WARPERS*—Sectional and full width—are of rugged construction—able to withstand the highest speeds and heaviest use. The Reiner automatic yarn storage device is designed to take off yarn from the spool to facilitate repairing of broken yarn ends without disturbing the yarn tension. Sectional warpers available up to 84" in length, with flange diameter up to 21". Shorter models adaptable to multiple spools for the milanese and narrow fabrics trades. Many patented features insure ease of handling, safety and above all—quality warps. For further details ask for our Warper catalog.

*Reiner Warpers and Creels can readily be used with any make warp knit equipment.

To Buy Reiner means to have a fully interrelated line of equipment from cone to fabric. It means ready advice and spare part service—in short, the best assurance of profitable and reliable production.

THE REINER LINE INCLUDES:

Tricot Machines (2- and 3-bar, 84" and 108")—Simplex (Double Knit) Machines—Raschel Machines—Full Width and Sectional Warpers—All type of Creels—66 Gauge, Four Section Full-Fashioned Hosiery Machines—Automatic Schiffli Embroidery Machines (10 and 15 yards)—Bobbin Winding Machines (for Stitching and Quilting).
—Ready spare part service for all Reiner equipment.

ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 — 550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY

IN-DUS-CO
SOLID SET BRUSHES

ARE THE best all 'round brushes—

FOR FURNISHING—

Printers prefer it, because its solid surface prevents missing and skipping, and keeps engraving clean even in large blotches, which sometimes occurs with tuft set brushes.

FOR RAISING & LAYING—

Woolen and worsted manufacturers like it because it leaves no line on woolen goods.

IN-DUS-CO BRUSHES have

- Cores of metal, bristle wound and set in water-, alkali-, and acid-resisting plastics, with no wires or metal strips to loosen and damage goods.
- Light in weight because no binding metal is required.
- Nylon bristle if desired.
- Bristle replaceable when worn.

- **ALSO METAL WOUND TUFTED BRUSHES** for those who prefer the tufted design. Bristle renewable when worn.

Thousands of IN-DUS-CO brushes have been in use for years giving satisfactory service.

Send for folder with full descriptions and prices

INDUSTRIAL *Brush Company*

WOODSIDE AVENUE • LITTLE FALLS, NEW JERSEY

capacity are standard. The total load carried can be as much as 30 times the rating of the drive.

•

Automatic Centering Provided by New Conveyor

A new conveying unit that automatically centers material going along it has been introduced by Alvey Conveyor Mfg. Co., 9315 Olive St., St. Louis 24, Mo. Each roller is slightly tilted in alternating directions to form a central trough. Any shape of item rolls forward easily without the necessity of side guards.

Called "Vee-Conveyors," the units are made in various widths and roller-load capacities.

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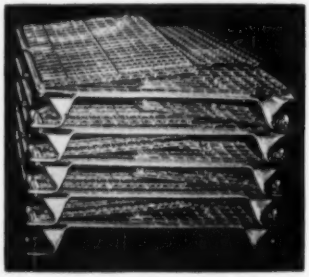

Collapsible Steel Containers Can Be Stacked or Folded

Collapsible-type steel "Cargotainers," made by Pittsburgh Steel Products Co., Pittsburgh 30, Pa., are easily stacked when folded or filled. They are designed for handling by fork-lift trucks and are useful in inter- or intra-mill shipping of yarns, etc.

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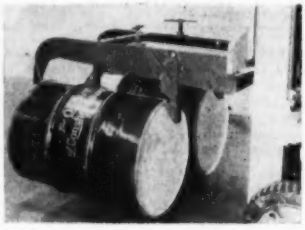


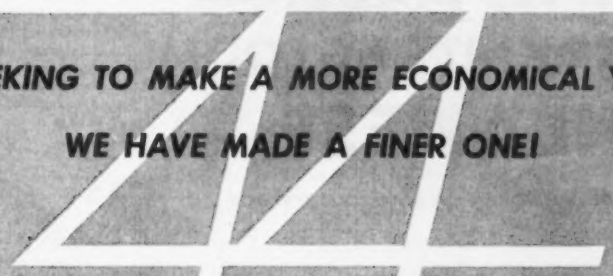
Fork-Truck Attachment Handles Drums Horizontally

A new horizontal drum-handling device that can be attached to any industrial fork truck without removal of the forks or the making of any hydraulic or mechanical connections is now available from the Philadelphia Div., Yale & Towne Mfg. Co., 11,000 Roosevelt Blvd., Philadelphia Pa. Completely automatic, the new device is a self-contained unit that fits over the forks and is fixed to them with two screw-type clamps.

One or two standard drums can be picked up with the drum handler by simply lowering the handler over them while the truck is slowly backing away. The rear clamps are spring-loaded and

QUALITY SPUN FROM BEMBERG ECONOMY

IN SEEKING TO MAKE A MORE ECONOMICAL YARN, WE HAVE MADE A FINER ONE!



In the new Bemberg continuous 44-HH yarn imperfections are reduced to a minimum by elimination of usual costly handling of conventional skein yarn. The result is an excellent, economical yarn with a remarkable degree of elasticity. It has greater uniformity in dyeing, too, and the evenness is considerably improved throughout the yarn packages as well as between the yarn packages spun from different funnels.

The knitting of untwisted yarn is now made possible through application of a suitable compound in the 44-HH spinning. This cost-saving feature produces a fabric of softer texture and more desirable hand. Production of a wider variety of fashion-appeal garments is opened up by the great variety of finishes that may be effectively used on this new yarn. (Please note that Bemberg 44-HH yarn can be delivered on 42" beams.)

This Bemberg continuous yarn is already an outstanding success in French crepes, failles, triple sheers and all types of linings, draperies, etc. both in warp and filling. It can also be used as a filling yarn, for all types of warps and in all throwing operations. By all means, call us or write us for complete details.

BEMBERG®

Aristocrat® of Rayon Yarn

AMERICAN BEMBERG • MAIN OFFICE: 261 FIFTH AVE., NEW YORK 16, N. Y. • PLANT: ELIZABETHTON, TENNESSEE

FAMOUS *ORIGINAL*

"SAUPE" HIGH SPEED TRICOT MACHINES

2 bar—168" in all gauges from 18 to 34.
Also 3 bar machines—with solid and cut press attachments for unlimited range of raised effects.

HIGH SPEED DIAGONAL CIRCULAR KNITTING LOOM

for **MILANESE** type

fabrics for underwear and outerwear

GROSS

4 HEAD EMBROIDERY AUTOMAT

To embroider your own garments in your own factory. Easily! Quickly! Without skilled or experienced help.

We invite your inquiries

ERICK GROSS *Corporation*

Telephone DUmont 4-4537

64-72 WEST BROAD STREET
BERGENFIELD, NEW JERSEY

snap under the lip of the drum. When the drums are lifted, gravity action locks the clamping hooks in place.

The attachment weighs 270 lb.

•

Stainless-Steel Truck Has Textile Applications

A 1000-lb.-capacity tub-type truck of stainless steel has been developed by Market Forge Co., Everett, Mass. The truck has features that should interest bleaching, dyeing, and finishing plants.

The 72 x 36 x 28-in. inside of the truck is carefully finished and polished to resist corrosion. All corners are rounded. Top edges are reinforced to stiffen the sides and resist damage. A removable plug allows contents to drain.

Any type and arrangement of swivel or rigid casters can be furnished.

•

Portable Lift Truck Has Half-Ton Capacity

The Newton Hydratruck, a light easily maneuverable lift truck that will raise or lower loads of one-half ton up to 5 ft. in less than a minute is available from Ginsberg Machine Co., Inc., 224 Fifth Ave., New York, N. Y. Units are equipped with either a hydraulic power pump or a hand pump or both. A ½-hp. motor is required to operate the hydraulic pump.

The unit is recommended for medium-weight general-utility lifting and hauling around the mill, warehouse, and loading platform.

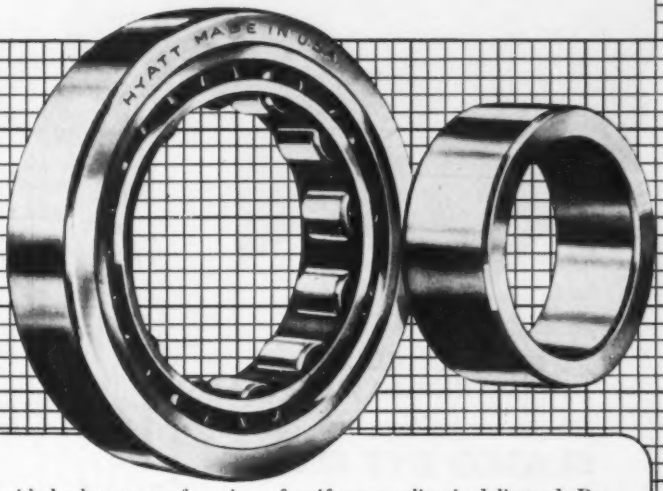
•

Conveyor Pulls Trucks up Directly on Own Wheels

A fireproof, all-steel-construction 24-in.-wide conveyor that rapidly conveys trucks with wheels either up or down from floor to floor has been brought out by Wehle Conveyor Co., 201-203 Water St., Binghamton, N. Y.

Built in a two-load capacity, 500 and 1,000 lb., and custom-built in various

Advantages add up when your new looms are HYATT equipped



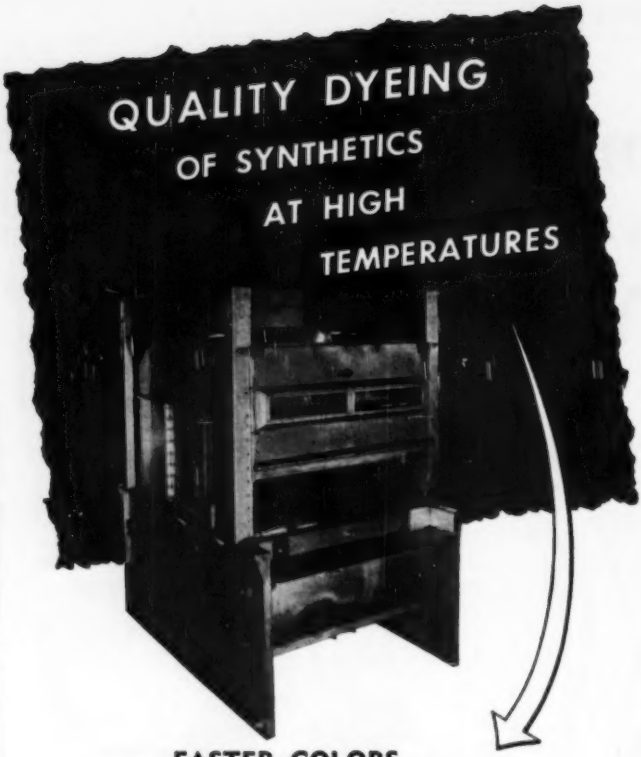
IT WILL be to the decided advantage of your mill and your customers when you specify Hyatt Roller Bearings for crank, cam, and rocker shafts, vibrating whip rolls, take-up roll, yarn beam and pick shafts.

Here are some Hyatt advantages:—Less than half the usual effort required to turn over the loom by hand. Less fixing—there is practically no bearing wear. You save on lubrication, less required. You turn out cleaner cloth because Hyatt bearings are adequately sealed, no oil spots. Increased production of uniform quality is delivered. By reducing friction you save on power. And the accuracy of bobbin or shuttle transfer is maintained.

* * *

Leading manufacturers of looms and textile preparatory and finishing machines "build in" Hyatt Roller Bearings as standard equipment. Why not profit by Hyatt advantages in your specifications or use Hyatts for changeovers. Write for further information. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS



. . . FASTER COLORS
. . . MAXIMUM PENETRATION
with the *new* Stainless Steel

GLASCO DYE BECK

Features of this new dye beck include:

1. Curved bottom tub in which the cloth is piled and upset evenly without tension. Curved bottom also saves dye liquor.
2. Optional recessed closed steam tube coil at the low point of the tube maintains required temperature of dye liquor without damage to the cloth. Only the dye liquor touches the coil.
3. Atmosphere above the dye liquor is maintained clear and at better than liquor temperature.
4. Positive color distribution over full length of the dye tub is obtained by means of a removable color trough with strainer and a quick color washing or spraying tube, and gravity flow within the trough.
5. Optional cross-over equipment within present enclosure for continuous dyeing with minimum cloth tension.

Write or phone for full particulars and demonstration.

GLASCO EQUIPMENT CORP.
Pioneer Fabricators of Stainless Steel Equipment
10 WAIT STREET — GLASCO PRODUCTS — PATERSON 4, N. J.

Phila. Area: Marple Organization, 1200 Commercial Trust Bldg., Philadelphia 2, Pa.
New York State: Sanders Industrial Equip. Co., 1351 Broadway, Albany 4, N. Y.
South: Henry H. Hersey Co., 44 Norwood Place, Greenville, So. Car.
New England: Harris & Underhill, 446 Statler Bldg., Boston, Mass.

232 For more information, write direct or use Reader Service post card.

lengths and widths to meet mill requirements, the conveyor is fast and so eliminates lost time. All bearings are ball bearings. The work chains are steel and detachable. Fingers are welded on.

•

Small Fork Trucks Designed for Trucks, Freight Cars

A new series of gasoline fork trucks specifically designed for operation in and around highway motor trucks and freight cars has been announced by Yale & Towne Mfg Co., 11,000 Roosevelt Blvd., Philadelphia 15, Pa. Called the "Trucker" series, the new trucks combine low weight, low over-all height, and high maneuverability for operation in close quarters, as in truck bodies.

Available in capacities up to 2,000 lb., the new truck is 68 in. high when the telescopic lift is collapsed.

Maximum lift height is 108 in. Speed is 7½ mph.; and lifting speed, empty, is 45 ft. per min.

•

Drum Roller Permits Easy Agitation of Fluids

Agitation of fluids in drums is easy with a new drum carrier and roller made by McKinney Wood Products Co., P. O. Box 249, Canton, Ga. Agitation is done by rotating the drum on rubber-wheel casters mounted on a wooden frame or dolly.

Knitting

(*Continued from page 120*)

that the zero or mean position of the tension bar remains fixed. An increase in warp tension causes a change in position of the knitting-machine tension bar. This change in position is converted to an electrical impulse that, when amplified, operates a small a.c. motor geared to the beam. Operation of this motor releases the beam, maintaining proper tension.

As tension momentarily changes through the action of the knitting machine, a dancer contact on the tension bar opens and closes. This contact, connected to the low-energy grid of a single thyratron tube, triggers the power circuit of the beam motor. The fluttering action of the tension contacts gives rapid on-off control of the motor voltage. Thus the motor operates at a speed to maintain proper tension.

When it is necessary to stop the knitting machine for any reason, a pulse of d.c. current is forced through the motor windings, and the motor is stopped in one or two revolutions.

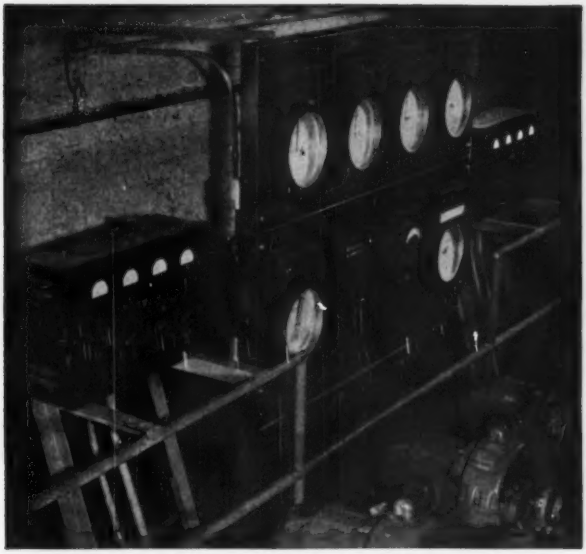
•

Reiner Announces New Tricot Model

Model RT-4, a new tricot-knitting machine, has been introduced by Robert Reiner, Inc., 550 Gregory Ave., Weehawken, N. J. The machine is said to make quality control easier and also to make operations easier with less handling.

Particular attention has been given to the elimination or reduction of shade and stop marks, and to the construction of

(Advertisement)



CONSTANT CONTROL OF WARP YARNS. These Bristol instruments automatically control temperature, liquid level and pH on the sheet of warp yarns running through the dye-slasher of Unistel-Batchelder range at Empire Cotton Division, Woods Mfg. Co., Welland, Ontario.

HOLD pH VALUE AUTOMATICALLY

Hundreds of Bristol automatic pH controllers and recorders are used to hold pH at the value known to produce the best results.

With pH in important processes stabilized—time, money and materials are saved, and a uniform quality product results.

Textile mills here and abroad use Bristol continuous pH controllers and recorders on such applications as *neutralizing* after carbonizing and scouring, *conditioning* water for dye and bleach house, *neutralizing* plant waste.

Bristol pH instruments on such applications as these and others in your plant will help you produce better quality at less cost. A typical installation—including other Bristol textile instruments—is shown above.

Write for bulletins on Bristol pH instruments and other Bristol instruments for the applications listed at the right. Address THE BRISTOL COMPANY, 103 Bristol Road, Waterbury 20, Conn.

BRISTOL INSTRUMENTS FOR TEXTILE MILLS

FOR COTTON WEAVING AND FINISHING:
Automatic control for raw stock, yarn, and piece goods, dryers, sour pit, mixing water, boiling-off kettles, and bleaching kettle.
Temperature control for dryers.
Humidity control for dryers.
Slasher control.
Kier-boiling control system.
Dry can control.
Automatic control of dye jigs, dye machines, dye kettles.
Humidity recorders for carding, combing, drawing, spinning, weaving.
Flow meters for measuring steam to each department.
Liquid level recorders and controllers for water tanks and wash wheels.

FOR WOOLEN AND WORSTED:
Automatic temperature control for scouring, drying, dyeing, steaming and water mixing.
Coordinated process control for dyeing and wash wheel.
Humidity control for sorting, carding, weaving, spinning.
Time-temperature control of dye vats, machines and tubs.
Liquid level control for water tanks and wash wheels.
Tachometers for yardage through tentering dryer.
Automatic temperature control of water supply.
Control for back washers and back wash dryers.
Controls for scouring, carbonizing, and neutralizing.
Decating controls.

FOR SYNTHETICS:
Control for degumming tanks.
Control for dyeing.
Slasher control.
Control for bleaching and drying.
Humidity control for twist set box.
Humidity control in spinning room.

FOR FINISHING:
Control for scouring, boarding and dyeing.
Temperature control of conditioner.
Control for washing and bleaching equipment.
Completely automatic decating controls.
Humidity recorders and controllers.

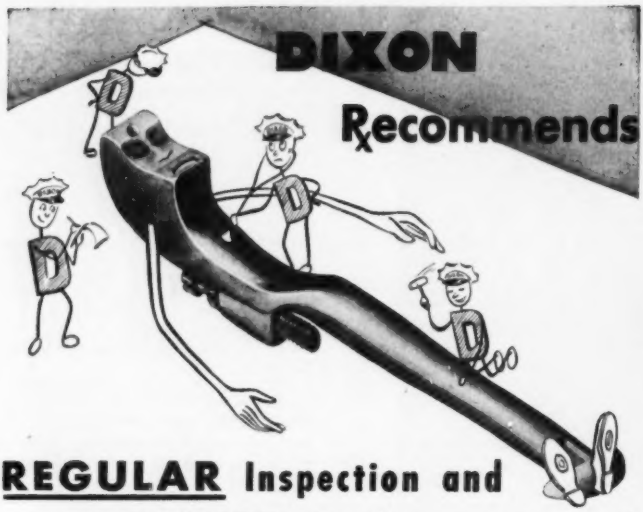
FOR POWER PLANT, WATER SUPPLY AND PLANT WASTE DISPOSAL:
Flow meters for steam and water.
Recording voltmeters and ammeters for electric lines.
Recording gauges for steam pressure, etc.
Recording thermometers.
Draft recorders and controllers.
pH and flow meters on waste disposal system.

THE DEPENDABLE GUIDEPOST OF INDUSTRY

BRISTOL

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

 For more information, write direct or use Reader Service post card.



REGULAR Inspection and PLANNED Replacement of Worn Saddles

Institute a program of inspecting each frame twice a year. Worn saddles, like travelers, must be replaced on a regular schedule. Mills report these:

Proven Advantages

- ✓The program pays for itself
- ✓Yarn imperfections are reduced, efficiency increased
- ✓Newest type saddles gradually replace less efficient models
- ✓Incorrect saddles, faulty weighting installations are eliminated
- ✓Spinning frames are rejuvenated without extensive shut-downs
- ✓Damaged top rolls eliminated
- ✓Maintenance costs are lowered

Ask how the newest Dixon saddles fit into a regular replacement schedule.

DIXON LUBRICATING SADDLE CO.

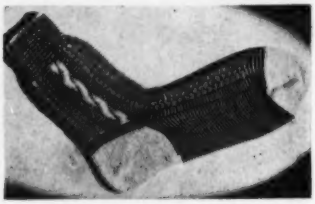
Southern Sales: R. E. L. Holt, Jr & Associates, Box 1474, Greensboro, N. C. Covering the Carolinas and Virginia
J. W. Davis, Mfg'rs. Agent, Box 745, Columbus, Ga. Covering Georgia, Alabama, Mississippi, Louisiana and Tennessee
Northern Sales: W. R. Potter, Sales Manager, Dixon Lubricating Saddle Co., Bristol, R. I. Covering New England

special fabrics by improved brake controls of automatic beam-feed devices.

The RT-4 has an automatic beam let-off transmission and a warp-tension adjuster. Knitted fabric is taken up automatically. An electromechanical brake-clutch with a needle-down disk reduces stop marks.

There is instantaneous cam-brake action, and the motor power has been increased from 3 to 5 hp. for a quick, level start. The machine has automatic oil-feed lines throughout. Two-bar units can readily be changed to three-bar units by means of split cams.

•



Hirner Attachment Available in S & W Machines

The Hirner heel attachment, which permits the heel gore to be extended down into the foot of the sock, is now available for all sizes of the Scott & Williams, Laconia, N. H., Komet links-and-links machines. This device allows the knitting of extra fabric into the sole portion of the foot after the heel, thereby tending to bring the foot and the leg of the sock into right-angle position. The "right-angle" feature eliminates wrinkling across the instep when the sock is worn.

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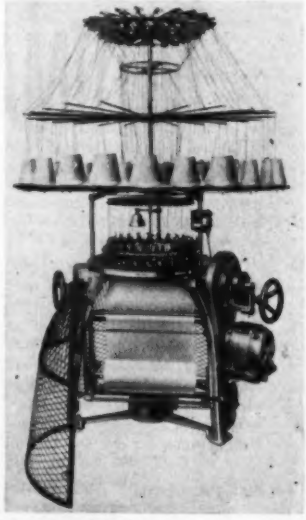
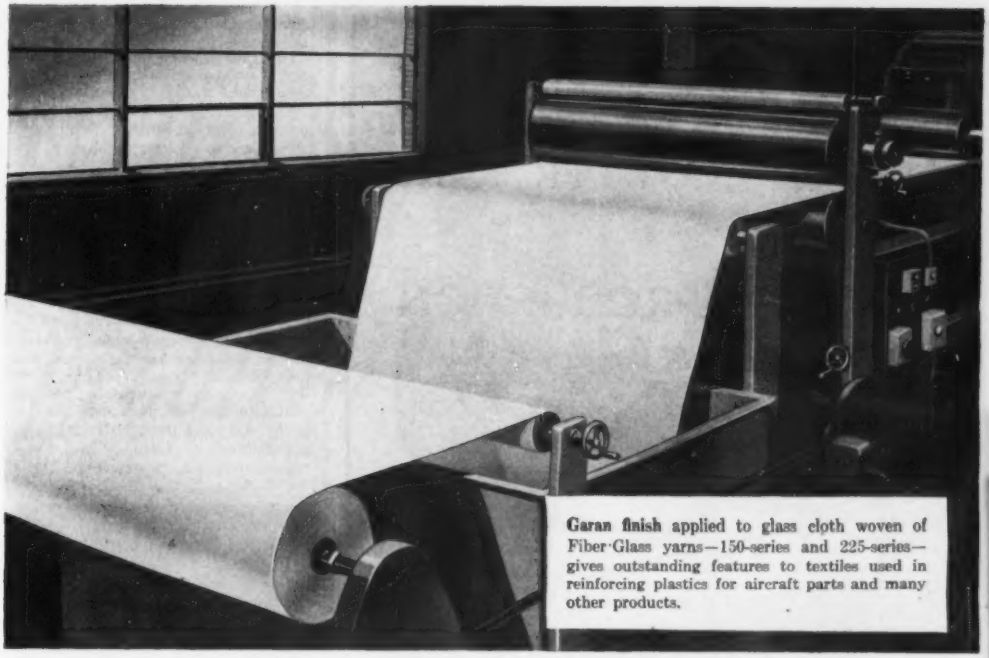


Knitting Machine Produces Open-Stitched Fabrics

"Vent-Knit" circular-knit fabric with a latticework of stitches that forms a series of air vents can be made on the new Model-LRP knitting machine available



Garan finish applied to glass cloth woven of Fiber·Glass yarns—150-series and 225-series—gives outstanding features to textiles used in reinforcing plastics for aircraft parts and many other products.

L·O·F Garan finish applied to glass fabrics at your plant

This L·O·F technical service increases saleability of your textiles

ONLY Libbey·Owens·Ford brings you the Garan finishing service. This makes available to you the Garan finish and the technical service required to apply this finish to your glass fabrics.

The Garan finish, specified by many fabricators using glass cloth, gives your fabrics outstanding advantages for the reinforced plastics market. It imparts higher strength and increases the translucency of Fiber·Glass-reinforced plastics.

What's more, there is little or no loss in strength when these plastics are exposed to high humidities or immersed in water. In tests, laminates made with Garan-finished glass cloth showed a water absorption of about one half compared to other finishes which were tested.

Give your glass fabrics important sales advantages by having them treated with the Garan finish, L·O·F offers complete technical services to assure best results. Get in touch with the nearest L·O·F office (district offices in 26 major cities). Or write, wire or phone Libbey·Owens·Ford, Dept. F·G17112, Nicholas Building, Toledo 3, Ohio.

L·O·F GLASS PLASKON FIBER·GLASS

LIBBEY·OWENS·FORD GLASS COMPANY
FIBER·GLASS DIVISION

FIBER·GLASS

here's the knitting machine
that will give you your choice of
• LOWER COST PER YARD
with less operators
OR . . .
• DOUBLED PRODUCTION
with perfect cloth all the way
plus maximum fabric versatility!

IT'S THE
NEW
TOMPKINS
DOUBLE HEAD
SPRING NEEDLE
KNITTING
MACHINE

SAVES ON LABOR!
SAVES ON WASTE!
SAVES ON NEEDLES!

FULLY
MODERN
• individual motor drive for each head
• electric stop motion
• furnishing wheels

WRITE FOR COMPLETE DATA

Let us show you what this machine will do for you—send for NEW DATA SHEET showing actual machine comparisons . . . gives you the kind of cost, production and cloth quality information you've been looking for! Subjects covered include Fabric Flexibility; Perfect Rolls of Cloth; Needle Breakage Reduced One-Half; and Needle Savings! Write, phone or wire . . .

TOMPKINS BROS. CO.
ESTABLISHED 1846
629 Oneida St. Syracuse 4, N. Y.

from Supreme Knitting Machine Co., 105 Johnson Ave., Brooklyn, N. Y.

The LRP machine produces summerwear or underwear fabric with air-cooling, open-stitched areas in a plain-jersey background. The open areas can be formed in a wide variety of patterns. "Vent-Knit" fabric is said to be strong, full-bodied, run-resistant, and elastic.

The open fabric can be produced on the LRP machine at rates up to 28 yd. per hr.

•

F.-F.-Machine Float Rings Eliminate Nylon-Yarn Wear

Yarn moistening on full-fashioned hosiery machines doesn't mean splashovers and cut floats any more when new float rings are used. The yarn runs through the rings at an angle and turns the ring constantly, bringing the moistening agent up to the yarn going through. The rings are manufactured by American Lava Corp., Manufacturers Rd., Chattanooga 5, Tenn.

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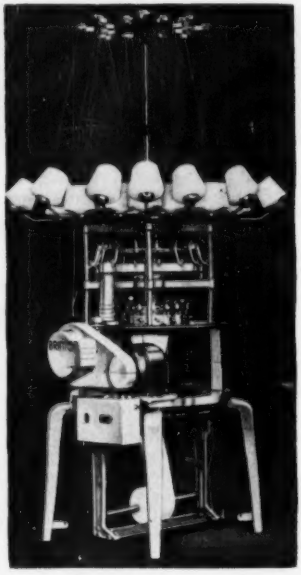


New Ribber Has Many Design Innovations

The combined talents of knitting-machine engineers and an industrial-designing firm have produced a new ribber with interesting design and engineering innovations. The ribber, called the Multiplex, is a new product of H. Brinton Co., Kensington Ave. at M St., Philadelphia 24, Pa.

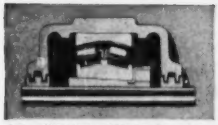
A new para-plane drive that connects dial, cylinder, and upper and lower take-up levels by gears is said to coordinate positively the action in the four parallel planes. The result is said to be greater stitch uniformity and reduced needle breakage.

A micrometer-dial adjustment calibrated in 1/1000 in. on an 18-in. scale with

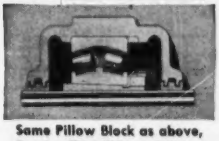
If dirt's your problem

here's the answer-

SKF TRIPLE-SEAL "SAF" PILLOW BLOCKS

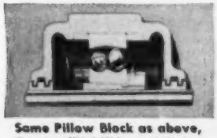


"Free" Spherical Roller Bearing.



Same Pillow Block as above, Bearing "Held" by stabilizing ring.

"Free" Ball Bearing.



Same Pillow Block as above, Bearing "Held" by stabilizing ring.

Here's *why* the Series SAF Pillow Block is SKF's answer to your problems:

- Triple-Seal rotating rings give positive protection in dirty locations; effectively seal out foreign matter; seal in oil or grease.
- Stabilizing ring between the housing shoulder and the bearing insure fixed position of one held bearing on the shaft and prevents end movement of the shaft.
- Adapter-type bearings permit use of standard shafting, yet provides a *tight fit*.
- Easy to install and inspect; self-aligning.

Write SKF for Folder No. 340 (for complete details), or contact your SKF Distributor.

SKF INDUSTRIES, INC., PHILA. 32, PA. — *manufacturers of* **SKF** *and* HESS-BRIGHT *bearings.*

SKF®
BEARINGS AND PILLOW BLOCKS

Roof-truss design and fabrication by Timber Structures, Inc.

How American Textile protects their dye house trusses and roof-deck from rot and decay

• In 1951, when American Textile Processing Co., Inc. planned their new dye house in Paterson, New Jersey, they designed one of the most modern plants in the industry. The roof of a dye house calls for the insulating qualities of wood . . . but the constant presence of acid vapor, steam and condensate makes for a serious maintenance problem. American Textile Processing solved this problem by specifying that all wood used in the trusses and roof decking be pressure-treated Wolmanized® lumber.

Wolmanized lumber is clean, odorless, paintable and non-leaching. The ability of Wolman preservative salts to prevent decay or insect attack makes any lumber last longer in the presence of moisture and termites. There are Wolman preservative treatment plants in all parts of the country. For further information, write:

American Lumber & Treating Company

General Offices: 1601 McCormick Bldg. • Chicago 4, Illinois

Offices: Little Rock, Ark. • Portland, Ore. • Boston • Los Angeles
San Francisco • Baltimore • New York • Jacksonville, Fla.

See our CATALOG in SWEET'S FILE

Wolmanized PRESSURE TREATED **Lumber**

pointer is said to provide absolute accuracy in raising or lowering the dial. A similar micrometer adjustment aligns cylinder and dial slots.

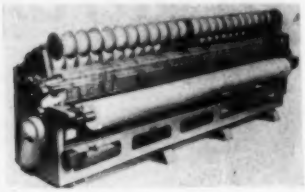
Fabric inspection is eased by an electric light suspended in the fabric.

•

Device Improves Welt Transfer

Perfect transfer of the welt is said to be assured by a new attachment for seam-free nylon-hosiery machines made by Scott & Williams, Inc., 350 Fifth Ave., New York 1, N. Y. The new mechanism lifts the latches slightly away from the needle shanks as the needles are drawn down at the throat plate after taking the loops from the transfer jacks. This movement prevents the stitches below the latches from getting back into the needle hooks to cause an uneven transfer line.

•



Mayer Tricot Machine Promises Higher Production

The latest-type Mayer tricot machine is now available through Alfred Hofmann & Co., 629 59th St., West New York, N. J. Described as the latest in 168-in. machines, the Mayer high-speed warp-knitting loom can increase production up to 30%, the company states.

The machine is available with two or three guide bars and a cut-presser-pattern bar. It takes 22- to 34-gauge yarn.

•

Varied Stitch Length Improves Hosiery Elasticity

A new elasticity has been achieved in the welts of seam-free nylon stockings by a new attachment for the 400-needle nylon-hosiery machines made by Scott & Williams, Inc., 350 Fifth Ave., New York 1, N. Y. This new attachment lowers and raises the left stitch cam to lengthen the stitches in every alternate course or in every fourth course. These lengthened stitches provide a stretch to the fabric that makes for a closer fit to the leg without additional tension. Besides increasing the stretch, the welt is improved in appearance by the suggestion of a regular pattern in the knit.

Power

(Continued from page 135)

are also available. A tachometer, calibrated to the user's specifications, may also be attached.

Overload Release Protects Speed Reducer

An overload release for the Dodge Torque-Arm reducer, which provides in-

For more information, write direct or use Reader Service post card.

stant and positive protection for driven machines, motors, and the speed reducer itself, has been developed by Dodge Mfg. Corp., Mishawaka, Ind.

Designed to prevent breakdowns, avoid expensive repairs, and insure against interruptions of production resulting from any excessive load on the equipment, the new product has been named the Dodge Tri-Matic overload release because of the triple protection it affords. The release operates both mechanically and electrically to (1) loosen the belts; (2) cut off the current; (3) activate a warning bell, siren, or light.

•

Larger Enclosed Geared Motors Provide Maximum Dust Protection

Larger, totally enclosed fan-cooled geared motors that are designed for low-speed drives where maximum protection is required against nonexplosive liquids, dust, or vapors have been added to the line of "Slo-Speed" electric power drives manufactured by Sterling Electric Motors, Inc., 5401 Anaheim-Telegraph Rd., Los Angeles, Calif.

The new units are double reduction and are available with Class I, II, and III gears in frame size 364/365, and AGMA speed 155 rpm. and slower, in ratings from 5 to 25 hp.

•

New Bearing Is Lined With Nylon

A bearing that has an outer sleeve of inexpensive metal and a thin lining of nylon bearing material has been developed by Thomson Industries, Inc., Manhasset, N. Y. The nylon liner is retained in the sleeve in a manner that will permit it to expand and contract circumferentially around the inner surface of the sleeve.

Called the "Nylined" bearing, the new product is said to eliminate the need for wide clearance necessary with plain nylon bearings. A narrow slot, or compensation gap, interrupts the circumference of the bearings material and allows for dimensional changes.

•

Fusible Disconnect Features Motor Starter

A new combination across-the-line motor starter with fusible disconnect switch is available from Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Pa., in NEMA sizes O through Z.

The starter, designated as Class 11-204-N, consists of a disconnect switch, main-line fuse clips, and a Life-Line starter mounted in a common enclosure. The disconnect switch is of an improved design, with visible blades and de-ion arc quenchers. A self-indicating slamproof handle is provided in the cover. It has separate positions for On, Off, and Open Cover, and can be locked in the Off position.

•

Motor Starter Has Side-By-Side Components

A new combination across-the-line motor starter with a circuit breaker in

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NEW IDEAS

TO CONTROL COSTS!

Whatever your problems in scales for receiving, production, shipping, stock rooms, and many other textile weighing operations . . . there's a modern Toledo to do the job with high *accuracy, speed* and *dependability.* Have you checked your scale needs? Get latest information in this widely used reference on Toledos that help you guard costs . . . speed production. Look into the advantages of Printweigh in stopping losses that originate through human errors. Send coupon for new edition—"Toledo, Headquarters for Scales."

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Pages

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nbered

Roof-truss design and fabrication by Timber Structures, Inc.

How American Textile protects their dye house trusses and roof-deck from rot and decay

• In 1951, when American Textile Processing Co., Inc. planned their new dye house in Paterson, New Jersey, they designed one of the most modern plants in the industry. The roof of a dye house calls for the insulating qualities of wood . . . but the constant presence of acid vapor, steam and condensate makes for a serious maintenance problem. American Textile Processing solved this problem by specifying that all wood used in the trusses and roof decking be pressure-treated Wolmanized® lumber.

Wolmanized lumber is clean, odorless, paintable and non-leaching. The ability of Wolman preservative salts to prevent decay or insect attack makes any lumber last longer in the presence of moisture and termites. There are Wolman preservative treatment plants in all parts of the country. For further information, write:

American Lumber & Treating Company

General Offices: 1601 McCormick Bldg. • Chicago 4, Illinois

Offices: Little Rock, Ark. • Portland, Ore. • Boston • Los Angeles
San Francisco • Baltimore • New York • Jacksonville, Fla.

See our CATALOG in SWEET'S FILE ARCHITECTURAL

Wolmanized PRESSURE TREATED Lumber

pointer is said to provide absolute accuracy in raising or lowering the dial. A similar micrometer adjustment aligns cylinder and dial slots.

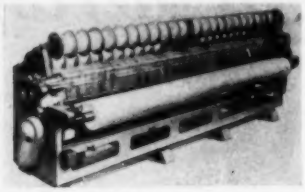
Fabric inspection is eased by an electric light suspended in the fabric.

•

Device Improves Welt Transfer

Perfect transfer of the welt is said to be assured by a new attachment for seam-free nylon-hosiery machines made by Scott & Williams, Inc., 350 Fifth Ave., New York 1, N. Y. The new mechanism lifts the latches slightly away from the needle shanks as the needles are drawn down at the throat plate after taking the loops from the transfer jacks. This movement prevents the stitches below the latches from getting back into the needle hooks to cause an uneven transfer line.

•



Mayer Tricot Machine Promises Higher Production

The latest-type Mayer tricot machine is now available through Alfred Hofmann & Co., 629 59th St., West New York, N. J. Described as the latest in 168-in. machines, the Mayer high-speed warp-knitting loom can increase production up to 30%, the company states.

The machine is available with two or three guide bars and a cut-presser-pattern bar. It takes 22- to 34-gauge yarn.

•

Varied Stitch Length Improves Hosiery Elasticity

A new elasticity has been achieved in the welts of seam-free nylon stockings by a new attachment for the 400-needle nylon-hosiery machines made by Scott & Williams, Inc., 350 Fifth Ave., New York 1, N. Y. This new attachment lowers and raises the left stitch cam to lengthen the stitches in every alternate course or in every fourth course. These lengthened stitches provide a stretch to the fabric that makes for a closer fit to the leg without additional tension. Besides increasing the stretch, the welt is improved in appearance by the suggestion of a regular pattern in the knit.

Power

(Continued from page 135)

are also available. A tachometer, calibrated to the user's specifications, may also be attached.

Overload Release Protects Speed Reducer

An overload release for the Dodge Torque-Arm reducer, which provides in-

stant and positive protection for driven machines, motors, and the speed reducer itself, has been developed by Dodge Mfg. Corp., Mishawaka, Ind.

Designed to prevent breakdowns, avoid expensive repairs, and insure against interruptions of production resulting from any excessive load on the equipment, the new product has been named the Dodge Tri-Matic overload release because of the triple protection it affords. The release operates both mechanically and electrically to (1) loosen the belts; (2) cut off the current; (3) activate a warning bell, siren, or light.

•

Larger Enclosed Geared Motors Provide Maximum Dust Protection

Larger, totally enclosed fan-cooled geared motors that are designed for low-speed drives where maximum protection is required against nonexplosive liquids, dust, or vapors have been added to the line of "Slo-Speed" electric power drives manufactured by Sterling Electric Motors, Inc., 5401 Anaheim-Telegraph Rd., Los Angeles, Calif.

The new units are double reduction and are available with Class I, II, and III gears in frame size 364/365, and AGMA speed 155 rpm. and slower, in ratings from 5 to 25 hp.

•

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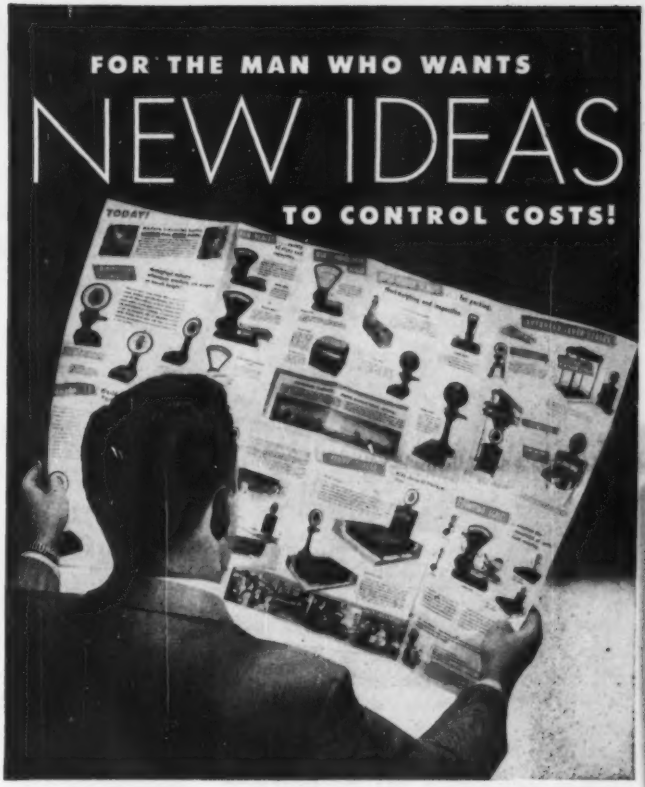

Whatever your problems in scales for receiving, production, shipping, stock rooms, and many other textile weighing operations . . . there's a modern Toledo to do the job with high *accuracy, speed* and *dependability.* Have you checked your scale needs? Get latest information in this widely used reference on Toledos that help you guard costs . . . speed production. Look into the advantages of Printweigh in stopping losses that originate through human errors. Send coupon for new edition—"Toledo, Headquarters for Scales."

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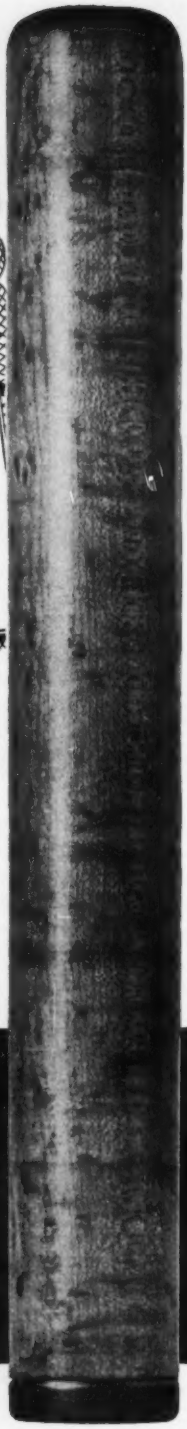
NEW ERA Type WARP BOBBINS For Saco-Lowell SG-1 Spinning Frames



This new bobbin, for top suspension drive, meets all requirements of the new Saco-Lowell SG-1 Spinning Frames — "The only revolutionary development in spinning for more than 100 years."

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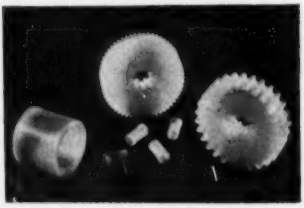
Hendrik Van Brederode, 311 Godwin Ave., Midland Park, N. J.; W. P. Russell, P. O. Box 778, Atlanta, Ga.; West Philadelphia Supply Co., Emerald and Somerset Streets, Philadelphia, Pa.; E. B. Smith, P. O. Box 3085, Greenville, S. C.

which the components are mounted side-by-side is available from Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Pa.

The starter has been developed for use where this mounting is desired for reasons of space and arrangement. It has the same self-indicating slamproof handle as the standard design with vertical mounting. The handle has separate positions for On, Tripped, Off, Reset, and Open Cover.

The starter is available in Sizes O, 1, and 2 in sheet-steel enclosures for NEMA Types 1, 1A, and V.

•



Molded Nylon Bearings Developed for Mill Use

A line of molded-nylon gears and bearings for use in textile machinery is being developed by Columbia Protectosite Co., Inc., Bearings Div., Carlstadt, N. J.

The manufacturer reports that users say the applications developed so far are "superior" to ordinary gears and bearings because the units do not have to be lubricated, are extremely tough and abrasion resistant, are inert to most chemicals, and in many cases cost less than other gears and bearings.

•

New Roller-Chain Fasteners To Replace Cotter Pins

"Rollpins," new roller-chain fasteners that are said to outlast cotter pins ten to one, have been announced by Morse Chain Co., a division of Borg-Warner Industries, 7601 Central Ave., Detroit 10, Mich. Manufactured by Elastic Stop Nut Corp. of America, Union, N. J., the rollpins will be available as fasteners on most of the larger pitches of Morse standard and heavy-series roller chains.

A chamfered-end, slotted-steel cylinder that compresses easily into a pin hole smaller than its own diameter, the "Rollpin" expands and locks in place until deliberately removed by hammer and punch.

•

High-Accuracy Drive For Synthetic-Yarn Spinning

A new drive for spinning machines that is designed to provide greater uniformity of denier and dyeability of synthetic yarns than ever before has been developed by General Electric Co., Schenectady, N. Y.

This all-a.c. drive is said to insure uniformity through the most precise speed control (1/10 of 1% over a 7:1 speed range) ever obtained for spinning-machine motors.

The system uses an electronically regulated a.c. adjustable-speed motor, which drives a variable-frequency alternator

EXTRA

Knitting News

EXTRA

SUPREME'S PRODUCTION-PROVEN LRP'S POUR OUT PROFITABLE VENT-KNIT FABRICS

The ... Supreme LRP *vent-knit* ... breeze-cooled cloth th... unique. It knits patterns ... strong.

Model ...

SUPREME MODEL LRP PRODUCES

A NEW FABRIC WITH SUPER SALES APPEAL

The Model LRP is one of the newest members of the Supreme family of high speed, circular jersey, terry and rib knitting machines. Write for information on the entire Supreme line.

Exciting New Pattern-Cooled Jerseys Create New Look . . . New Comfort...New Profits—In Summerwear and Underwear Fabrics.

Supreme's Model LRP has been proven in production. *Vent-Knit* has been proven by its versatility and quality. The unlimited fabric variations possible with this amazing machine can open many new and profitable markets.

The LRP produces these wonderful, decoratively cool fabrics by placing open-stitch areas in a plain jersey background. These *vent-knitted* areas form large, sharply defined patterns capable of wide variations in design.

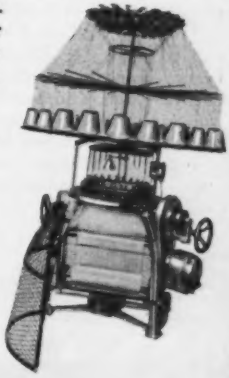
The *vent-knit* pattern is a firmly constructed latticework of stitches with scores of openings or air vents to let heat out and coolness in. The breeze-cooled comfort and beautiful mesh-like effects give the cloth super sales appeal.

Vent-Knit, pattern-cooled cloth is strong, full bodied, run resistant and lastingly elastic. Combination rayon and cotton as well as wool, nylon and new synthetic blends can be used to produce many startling fabric variations.

Dollar-Reaping Production Rates — The LRP pours out a wide variety of *vent-knit* cloth at rates up to 28 yards per hour. The machine has Supreme's mill-proven, trouble-free design and production-boosting construction features.

Standard Model LRP—24" diameter—24 feeds—18 needles per inch. Other diameters and cylinder cuts are available.

Write for free information and cloth samples.



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Winnipeg, Manitoba, 238 Garry St.

SNAP-ON TOOLS CORPORATION
8100-K 28th Ave., Kenosha, Wis.

through a two-speed, herringbone-gear box. The alternator output is delivered direct to small, synchronous motors on the spinning machine. These motors, in turn, provide direct drive to the machine positions and eliminate troublesome and costly gearing, tapes, and line shafting.

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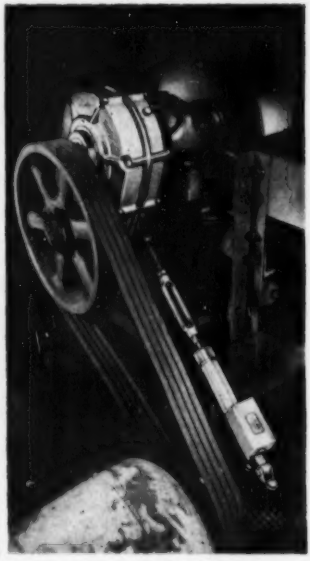

Shaft-Mounted Speed Reducer Has Large Speed Range

A new double-reduction shaft-mounted speed reducer with capacity to 43 hp., for output speeds up to 110 rpm., has been announced by Dodge Manufacturing Corp., Mishawaka, Ind.

The new No. 7 reducer greatly increases the applications for Dodge torque-arm speed reducers. It has 59% greater horsepower capacity than the No. 6.

Like previously announced models, the No. 7 is shaft-mounted and anchored with a torque-arm that fastens to any fixed object. A turnbuckle allows fast, easy adjustment of belt tension. Installation is simple and economical. There is no foundation to provide; no flexible couplings are needed.

•

Roller-Chain Sintered-Metal Bushings Are Oil-Impregnated

A special roller chain incorporating oil-impregnated sintered-metal bushings has been introduced by Whitney Chain Co., 237 Hamilton St., Hartford 2, Conn., after four years of research and development.

The new oil-impregnated sintered-bushing chain requires little or no lubrication and provides a chain drive that operates efficiently where conventional lubrication methods are either not possible or desirable. Installation of the new chain is subject to the company's engineering approval.

The new chain is expected to open up

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IN MANUFACTURING NON-WOVEN FABRICS with RANDO-FEEDER and RANDO-WEBBER

SAVE

Capital Expenditure

Only one pair of machines—Rando-Feeder and Rando-Webber—is needed to make a non-oriented web. No carding, garnetting or lapping equipment is required.

SAVE

Mill Space

Very little mill floor space (less than 10' x 5') is required. At present only massive machines, not having the versatility of Rando-Feeder and Rando-Webber, are being used.

SAVE

Production Time

The versatile Rando-Feeder and Rando-Webber produce webs of desired thickness . . . from paper thin to 2-inch thickness. Capacities of the machines depend upon the type and condition of materials being processed. The range of the machines is from 35 to over 100 pounds per hour. In addition resins can be introduced while web is being formed by a supplementary feeding device.

SAVE

Waste Fiber (and turn it into profitable products)

The web or mat produced is suitable for further processing into felts, wadding, heavy mats, and non-woven fabrics. To date waste fibers such as reclaimed tire cord, napper flocks, cotton linters, jute waste, garnetted cotton clips, Axminster loom waste, cotton, rayon, nylon mill waste and threads, wool noils and other similar materials have been processed.

WRITE today for more detailed information on how you can have a web made from your own fiber. Curlator Corp., EAST ROCHESTER, NEW YORK

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CURLATOR
CORPORATION
EAST ROCHESTER, NEW YORK

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Multifeeder and stripe or check pattern machines

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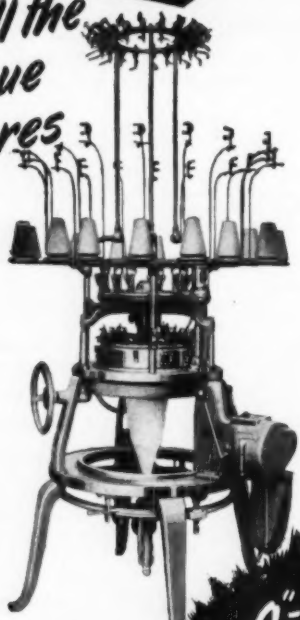

9"-30" DIAMETERS 20-24 CUTS

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Send for full details, to the builders of more than 7000 Interlock machines operating successfully in almost every country in the world.

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MELLOR BROMLEY & CO. LTD

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new fields of use for roller chains in areas previously restricted to other methods of power transmission. In one test where a ⅜-in.-pitch oil-impregnated sintered-bushing chain and a ½-in.-pitch standard roller chain were run under a 10-hp. load at 1,900 rpm., after 20 hours of operation the oil-impregnated sintered-bushing chain showed a wear of but 0.08 in. while the ordinary roller chain, pre-lubricated in accordance with the best practice, showed wear of 0.38 in. An increase of several hundred percent in anticipated service life is thus expected for the new chain.

•

Varidrive Unit Improved by Electric Brake

Fast, controlled braking of U. S. "Varidrive" motors is now possible through a new development of U. S. Electrical Motors, Inc., 200 E. Slauson Ave., Los Angeles 54, Calif. The brake used, a Warner type ICB, is mounted directly on the variable-speed shaft and eliminates transmission of the braking action through the belt. Ideal for inching or jogging, the brake offers instant, shockless operation without noise and produces a constantly increasing torque during stopping.

Containing few parts, the ICB has a mechanical movement of only 1/16 in. Unlike the solenoid-type brake, its frictional force is controlled directly by the magnetic action of the brake.

•

Lint-Tight Manual Starter For Textile Applications

A newly designed loom-motor starter featuring a lint-tight enclosure has been brought out by Square D Co., 4041 N. Richards St., Milwaukee, Wis. The heavy sheet-steel enclosure is provided with a neoprene gasket that effectively excludes the lint and dust normally found in textile applications.

The flush handle of the enclosure reduces the possibility of damage or accidental operation. It is easy to operate with a simple up-and-down motion. The handle position clearly shows whether the starter is on or off.

An over-center cam-type cover latch provides heavy clamping pressure on the neoprene sealing gasket.

Air Cond. and Heat

(Continued from page 134)

lint and dirt from the air and deposits them in an enclosed receptacle that is emptied periodically. No replacement of the filter medium is required.

•

Unit Provides From 5 to 14 Zones of "Weather"

A new line of central-system weathering, designed especially to provide independent control of air conditioning in separate areas of a building through a single unit, has been announced by Carrier Corp., 300 S. Geddes St., Syracuse, N. Y.

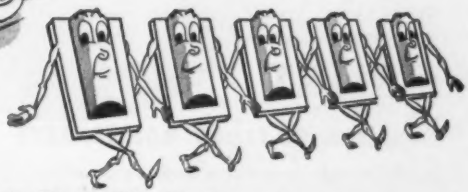
Five sizes are being produced, with air-

ERIEZ MAGNETIC ATTRACTIONS

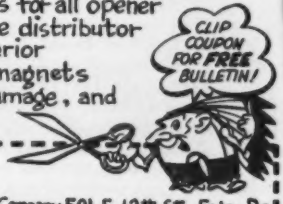
MR. T.I.

ERIEZ MANUFACTURING CO., ERIE, PA., U.S.A. • PRODUCERS OF MAGNETIC SEPARATORS

A MAGNETIC TRIPLE PLAY is made by seven Burton-Dixie plants with 61 *ERIEZ* Spiked Apron Magnets. Machinery damage, product contamination and fire... all out! Play safe and protect cards and garnetts from damage... you'll score more profits, more production and less maintenance with *ERIEZ* Factory Mutual approved magnets on the job.



TO KEEP IN STEP with the most modern developments in the textile industry... that's why the 70-year old Exposition Cotton Mills Co. of Atlanta, Georgia, in its big new expansion program, purchased *ERIEZ* plate-type ATOMagnets for all opener lines. Installed between the distributor aprons and horizontal superior cleaners, the non-electric magnets prevent fires, machinery damage, and product contamination!



MAGNETIC PROTECTION FOR YOUR TEXTILE PRODUCTS! This is the subject of a new 6-page bulletin offered by *ERIEZ* Manufacturing Co. It is complete with descriptions and installation drawings of all *ERIEZ* magnetic equipment in cotton, wool and waste applications. If you are troubled with tramp iron, this brochure will tell you how to catch it and save money. Use coupon at right

ERIEZ Manufacturing Company, 501 E. 12th St., Erie, Pa.

My Contamination or Separation Problem is: _____

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(Above) Dark oil-soaked floor maintained by scrubbing. (Right) Similar area, same dirt conditions, but TENNANT dry-cleaned.

An example of results you can get with the

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***System* OF FLOOR MAINTENANCE**

To be SURE of bright, easy-to-clean floors in your mill—both now and for *years* to come—no other maintenance method is more effective than the TENNANT SYSTEM.

It not only reconditions dark, spongy, water-softened floors . . . it restores original brilliance . . . hardens, seals and *protects* against dirt and traffic . . . cuts cleaning costs.

KEEPS FLOORS BRIGHT by fast mechanized dry cleaning. Eliminates scrubbing.

MAKES FLOORS EASY TO CLEAN. Dirt cannot readily adhere to smooth-sealed floors. Wipes off easily.

CUTS MAINTENANCE COSTS by saving manhours. Floors clean up like magic and stay clean much longer than when scrubbed. Floors stay dry, hard, lustrous; reduces slip hazards.

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2586 North Second Street
Minneapolis 11, Minn.

Write today!
Get typical case histories, photos, and NEW bulletin "How to Get Better Results in Textile Floor Maintenance."

TENNANT FLOOR MAINTENANCE System

Established 1870

OFFICES IN PRINCIPAL CITIES

conditioning capacities ranging from 12 to 58 tons. The number of zones possible with the factory-built damper section varies from five for the smallest size to 14 for the largest. Intermediate sizes include 7- and 10-zone units.

The units are designed for use in plants or office buildings where cooling or heating loads vary in different rooms or areas because of the changing position of the sun, the varying number of occupants, and other sources of heat gain or loss. In textile mills, start-up or shut-down of heat-producing power equipment in various parts of the plant or the need for different processing temperatures make zoning equipment especially applicable.

Weaving

(*Continued from* page 118)

sheet of resin. This sheet, or film, is used as the binding medium and not for purposes of impregnation of the wood. The laminated material thus retains much flexibility and elasticity.

In the picker sticks, a variation of density is given throughout the length of the stick. There is greater density and thus greater impact resistance at the upper end of the stick; and lower density, with the needed resilience, lower down on the stick. The end of the stick, being unimpregnated, lends itself more readily to the insertion of screws.

•

New Machine Available For Reconditioning Shuttles

A new machine for truing shuttles to the same size with equal angles and equal height of shuttle points is available from H. J. Theiler Corp., Whitinsville, Mass. The machine, made by Staubli Bros. of Switzerland, is said to be essential to good operation of box-type looms. The machine can handle shuttles up to a maximum size of 22½x2⅛x2⅛ in.

Operations that can be carried out by the machine are listed as follows:

1. Dimension all shuttles accurately and alike.
2. Grind and polish shuttle points to exact taper.
3. Equalize angles and thickness of shuttle and height of shuttle points.
4. Mill shuttle sides to smooth new surface.
5. Cut grooves and slots into shuttles, shuttle-box fronts, and reed frames.
6. Machine wooden fronts and backs of shuttle boxes.
7. Resharpen cutter knives without their removal from the cutter.
8. True bobbins and turn them to a perfect round shape.

•

Lock Plate Stops Harness Hooks From Turning

Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa., has recently developed an arrangement designed to prevent the damaging of harness shafts due to the turning of harness eyes and

Do You Spin or Twist?

THEN YOU SURELY NEED

HERR CONICAL RINGS

- **Stops Yarn Breakage**
- **Permits Heavier Doffs**
- **Keeps Yarn Cleaner**
- **Produces Smoother Yarn**

Each textile fiber shown above presents wonderful opportunities —each has special characteristics and handles differently.

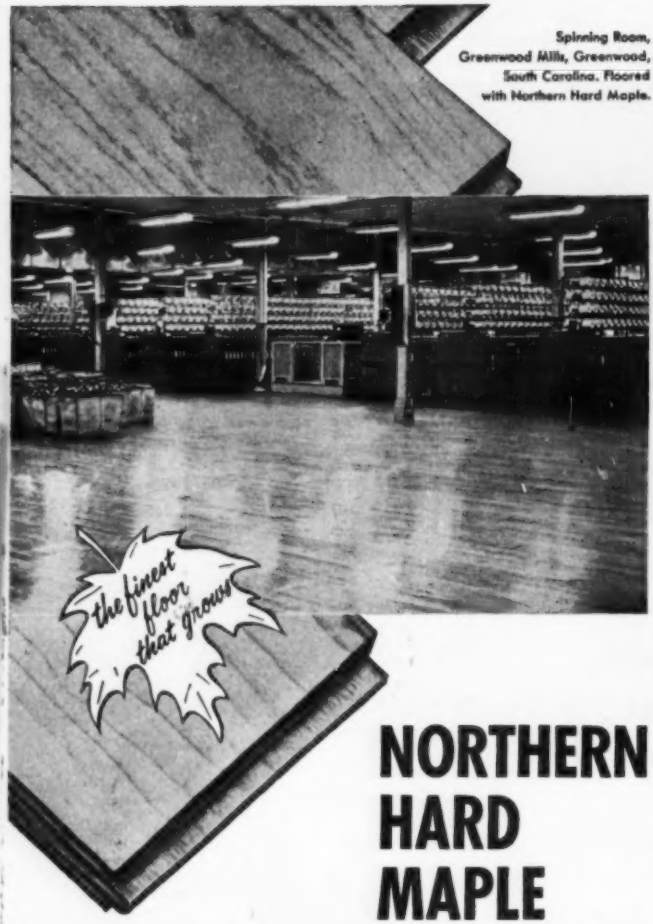
Ask us how yarn tension uniformity is controlled with the Herr Conical Ring... How we reduce ends down... How controlled lubrication affects cleanliness.

You can adapt your equipment for any textile fiber or blend if you use Herr Conical Rings.

Ask for help on your problem.

Gentlemen:
Please send literature on Herr Conical Rings and Herr Flyers.
Name.....
Position.....
Company address.....
Our problem is.....

HERR MANUFACTURING CO., INC.
309 FRANKLIN STREET, BUFFALO 2, NEW YORK



Spinning Room, Greenwood Mills, Greenwood, South Carolina. Floored with Northern Hard Maple.

NORTHERN HARD MAPLE

deservedly...first choice of the textile industry

Because it has *proved*, through the years, that it makes the best of all textile mill floors, Northern Hard Maple has sold *itself* to the industry, on its merits. Workers like its cheerful brightness and *resiliency* under foot. It's easy to brush clean, creates no dust, harbors no dirt, fights scuffs, scars and dents. It's easy to re-surface and it lasts for years. Even oil soaking doesn't affect its tough strength. The MFMA mill-mark assures it is true to species and right as to grade . . . look for the MFMA mark on the underside. See Sweet's (13k-MA).

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 592, Pure Oil Building, 35 E. Wacker Drive
CHICAGO 1, ILLINOIS

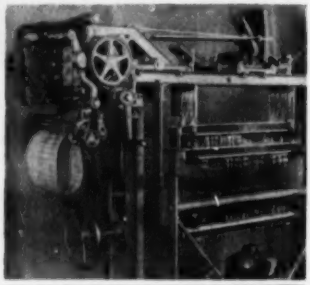
FLOOR WITH *NORTHERN* HARD MAPLE
BEECH AND BIRCH

hooks. The device is simple, low in cost, and easy to install: a lock plate.

The lock plate consists of a short metal rod shaped to fit the bevel of the frame—one end of which is rectangularly slotted to fit the swaged portion of the hook. The other end is simply fastened to the frame with either a screw or nail according to preference.

Once locked in place, the hook cannot be turned at all for the purpose of leveling the harness. For that particular function, harness adjusters are available.

•



Paper Patterns in Dobby Motion Offer Pattern Make-Up Time Savings

Dobbies with cam-driven knives that let the shed stay open longer, equipped with either wooden lags and pegs or a pattern-card setup, are now being offered by H. J. Theiler Corp., Whitinsville, Mass.

With the cam drive, shed changes take place very rapidly. The quick changing of the shed keeps warp ends from sticking together and snagging during shedding.

The dobby heads can be supplied with either the hand or the mechanical pick finder. With the pick finder, the weaver can disengage the dobby from the loom and turn it backwards or forwards alone. when he is finding broken picks. When the correct pick is open again, the dobby is re-engaged with the loom and weaving can continue.

Disengaging the dobby is also useful over weekends, when the harnesses can all be lowered so that tension will be the same on all the warp ends. When the loom is started up again, no set mark will be visible.

A supply of card-cutting paper comes with the dobby motion. The desired pattern is cut on the paper by the card cutting and copying machine. One such ma-

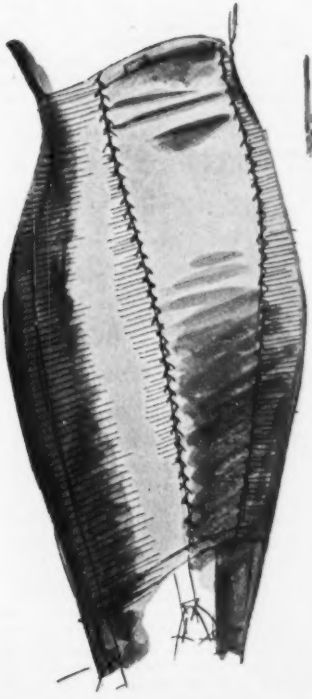
FOR TOP QUALITY

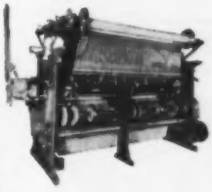
Elastic Fabrics

Step up production, cut costs with the high speed *Kidde* Knitter. Yes, you can get finest quality elastic net for girdles, foundations and brassieres at speeds you never believed possible.

The *Kidde* Knitter can *sustain* these high speeds because it is ruggedly built to absorb the strains of elastic. The power let-down for controlling the rubber beams is non-electric, reliable in action. The needle bar motion is specially designed for speed with heavy loads.

Use the *Kidde* Knitter to cut your knitting cost on elastic fabric. See for yourself the advantages that have made it the most popular Raschel machine in the trade.





Use the Kidde Knitter to make these fabrics, too:

Dress Fabrics—Veilings and Nettings—Dishcloth Material—Curtain Fabrics—Narrow Fabrics—Shoe Cloth—Laundry Nets—Knitted Outerwear Fabrics for Sweaters and Polo Shirts

KIDDE MANUFACTURING CO., INC., BLOOMFIELD, NEW JERSEY

Kidde Knitter

The word "Kidde" is the trademark of Walter Kidde & Company, Inc., and its affiliated companies.

Can you add to this list?

There is a partial list of textile industry applications in which Twin Disc Hydraulic Drives are easing damaging shocks on textiles-in-the-making and on production machinery:

Breaker Cards	Roving Frames
Finisher Cards	Spinning Mules
Rubber Covering Machines	Winding Machines
Friction Calendars	Embossing Padders
Garnett Machines	Reversing Aprons
Tenter Frames	Re-Winds
Braided Covering Machines	Twisters

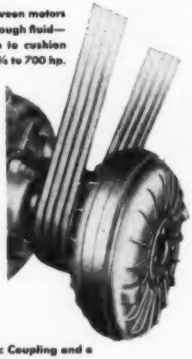
There are three Twin Disc Hydraulic Drives particularly adaptable to textile use. Ask for bulletins and data sheets describing many textile applications from your Twin Disc Hydraulic Dealer, or write to factory.

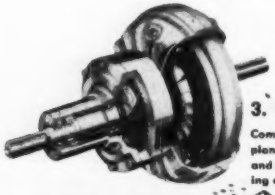
1. HYDRAULIC COUPLING

Compact double circuit design, mounts between motors and driven equipment to transmit power through fluid—eliminates direct metal driving connection to cushion shocks; picks up loads smoothly. Capacity ¾ to 700 hp.

2. HYDRO-SHEAVE® DRIVE

Mounts directly on outboard end of motor (or engine) shaft; provides softer starts; levels power demands; prevents motor burnouts, stalls; saves machinery and belt wear. Capacity ¾ to 50 horsepower.





3. HYDRO-WYND®

Combines a Twin Disc Hydraulic Coupling and a planetary gear train to provide constant tension and constant lineal speed automatically on winding applications. Sizes 7.4" and 8.4".

Built for a Long Life . . . Backed for a Lifetime

TWIN DISC CLUTCHES AND HYDRAULIC DRIVES

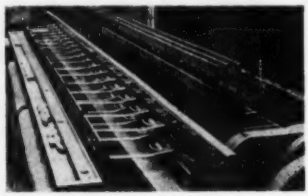
TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

chine will take care of several hundred dobbies. The cutting of a paper card is much faster than the making up of the pattern on wooden lags and pegs.

One yard of paper contains 300 picks. It is possible to have patterns of 12 to 15 yd. in length of paper, which means up to 4,500 picks on one pattern.

•



Narrow-Fabric Loom Developed in Holland

A narrow-fabric loom that has no superstructure has been introduced by N. V. Machinefabriek Breda, formerly Becker en Rueb, Breda, Holland. Harnesses are controlled by a motion located under the machine.

The new loom is all metal and is lubricated entirely by a central lubrication system.

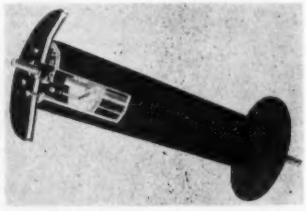
Beat-up of the loom is horizontal, not in the conventional arc. Twelve harnesses can be used. All harnesses can be leveled for drawing-in.

•

Slide Hook Improved

A new slide hook, called T-12, developed by Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa., is said to be easier to handle and more efficient in operation. The hook is self-adjusting and permits minimum separation of heddles. A larger bearing surface improves the free-sliding feature and reduces binding on the bar to a minimum.

•



Masonite Section Beams Have Structural Advantages

A new type of warper section beam whose heads and barrel are made of tempered Masonite hardwoods for outstanding moisture resistance, dimensional stability, structural strength, and abrasion resistance has been put on the market by T. E. Watson Co., Inc., 576 Lawrence St., Lowell, Mass.

The interior barrel construction consists of cast-iron heads at either end connected by tie rods and arranged for solid bolting to beam heads and keying to the shaft. It is not necessary to load up the

41%

OF INDUSTRIAL WORKERS
ARE VISUALLY UNQUALIFIED FOR THEIR JOBS

The record of visual performance tests of more than 5,000,000 individuals, in 4,000 job categories, reveals that, regularly, four of every ten industrial workers are visually unqualified for satisfactory performance on their jobs. It also shows just the degree to which these are the workers who are responsible for high costs . . . in accident rates . . . in waste and rejects . . . in labor turnover . . . in training time . . . in absenteeism.

YOU CAN IDENTIFY THE "VISUALLY UNQUALIFIED" IN YOUR PLANT

The Bausch & Lomb Occupational Vision Service is a scientific method for determining visual standards for every job, for identifying those who qualify, and for correlating visual skills to job requirements . . . to the profit of the employee and the employer.

A PROVED METHOD TO HELP YOUR PLANT MAKE MONEY 9 WAYS

The Bausch & Lomb Occupational Vision Service is available to you. It is easy to administer. Employee participation is voluntary . . . *and workers like the program.* Benefits which accrue in plants using O.V.S. (benefits which can accrue in your plant, too) include:

1. Improved quality of production
2. Increased production per worker
3. Reduced waste of materials and work rejects
4. Improved accident record
5. Reduced labor turnover
6. Lowered training cost
7. More effective placement
8. Reduced absenteeism
9. Improved employee relations

MAIL TODAY!

Send for the brochure "Eyes Right for the Job," which tells what the Bausch & Lomb Occupational Vision Service is, how easily it can be administered in your plant, and at what low cost.

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Please send me the brochure "Eyes Right for the Job," and complete details on the Bausch & Lomb Occupational Vision Service.

Name ..... Title .....

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Street .....

City ..... Zone ..... State .....

Textile Men in the "know" DEMAND DARNELL CASTERS

Always SWIVEL and ROLL

String-guards and Neoprene Rubber Treads make these casters "super" for use in textile mills. Easy Rolling plus a Darnell-designed bearing seal to keep out foreign matter provide economies in maintenance and operation appreciated by mill owners and operators alike.

FREE MANUAL

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DOWNEY, (Los Angeles County) CALIF.

60 Walker Street, New York 13, N.Y.
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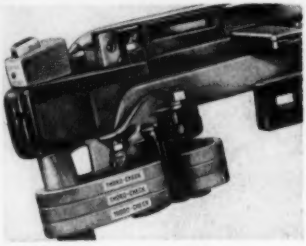
beam barrels with a series of heavy metal wheels for reinforcement as Masonite withstands compression of yarns without noticeable deformation.

The beam is considerably lighter than wooden ones of proportionate dimensions and is only slightly heavier than the aluminum type.

•



Checkstrap Has Up To 50% Longer Life

Shock distribution over the three rubberized-fabric components of this new Thoro-Check checkstrap, developed by Dayton Rubber Co., Dayton 1, Ohio, is said to have prolonged checkstrap life by 25 to 50% in tests made over the past year. Other advantages claimed are longer picker and shuttle life and protection of binder and stick. Straps may be individually replaced. Delivery: immediate, for all sizes and types.

•

Harness Stud Lasts Three Times Longer Than Previous Model

Rapid wear of studs and slide hooks used on slide-hook frames can be eliminated by this new swaged-type stud, No. 10F, according to the manufacturer, Steel Heddle Mfg. Co., 2100 W. Allegheny Ave., Philadelphia, Pa. The new stud is said to have a bearing area more than double that of the previous No. 10D stud. Swaged and case-hardened, the stud is said to outlive the previous stud at least three times.

•

Drive-Rod Arms Redesigned To Stay Tight

Loom-sword drive-rod arms, redesigned to allow for the application of pressure to both sides of the sword and thus keep the arm from loosening, have been developed recently by H. F. Livermore Corp., Allston Sta., Boston, Mass.

The redesigned arms are built in such a

For more information, write direct or use Reader Service post card.

here's why...

MORE and MORE mills are turning to micarta®...

because of these qualities...

Saves Weight, weighs half as much as aluminum. **Resists Compression,** pound for pound greater than steel. **Resists Impact,** absorbs and withstands severe shock. **Withstands Vibration,** cushions repeated shock without effect. **Insulates** like mica but greater flexibility. **Resists Corrosion,** not affected by acids, oils, fumes. **Resists Heat and Cold** from –112°F to 212°F. **Resists Moisture,** in fact, water is its best lubricant. **Wears Slowly, Evenly,** in many cases more slowly than metal. **Reduces Noise,** absorbs vibrations, deadens noise. **Fabricates Easily,** machined or punched with ordinary tools.

because of these flexibilities...

Laminated MICARTA includes standard structural shapes: plates, sheets, angles, channels, rods, tubes and zees. Occasionally this class includes simple molded shapes. **Molded MICARTA** is the choice for complicated shapes, large production quantities of either simple or complicated shapes, or for certain properties better obtainable in form molding.

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MICARTA is a tough and resilient basic material that welcomes comparison with other basic materials. This versatile plastic outlasts wood and metal in many punishing applications. Investigate MICARTA and you'll find it the economical solution to tough production problems.

for more information on how MICARTA can help solve your production problems, and give you advantages no metal can give you, please fill out the coupon below. A MICARTA representative will then call on you personally.

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micarta

Westinghouse Electric Corporation
MICARTA Division, Trafford, Pa.
Attention: L. A. Pedley

Sir: (Please Check One)

☐ Please have your representative call

☐ Please send me the complete facts on MICARTA

Name_____ Company_____

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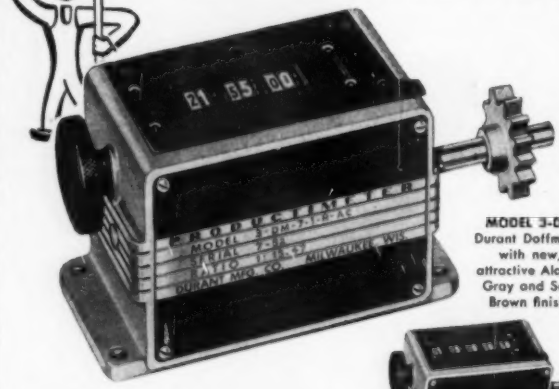
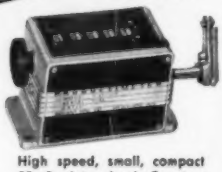
J-06501-B

STOP OVERRUNS AND WASTE

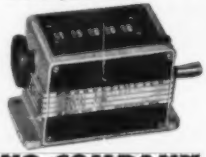
with DURANT DOFFMETER



MODEL 3-DM
Durant Doffmeter with new, attractive Alaska Gray and Seal Brown finish.



High speed, small, compact SP Predetermined Counters adaptable to many Textile applications. Available in Stroke and Rotary. Counts up to 2000 per minute.



This is the newest addition to the Producttimeter line of textile counting machines. The Durant Doffmeter is a compact, predetermined counter designed to cut off the loom or signal when the preset number of yards is reached. Eliminates cut marks and waste ends by assuring uniform yardage . . . simplifies inventory control.

Present day high costs make the installation of Durant Doffmeters on every loom a practical money saving investment. Plan now . . . write or contact us for detailed information.

DURANT MANUFACTURING COMPANY

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P.O. Box 3598 — HB-31 Greenville, S. C.
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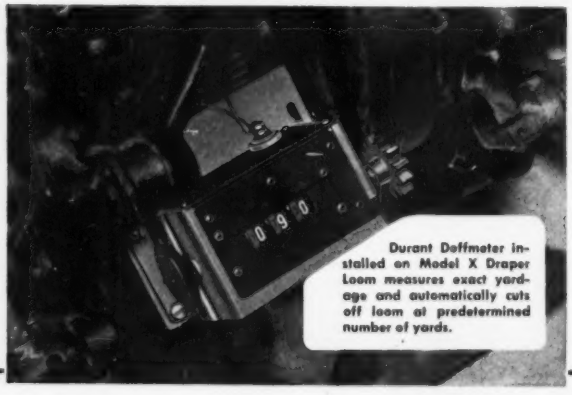
Representatives in Principal Cities



Durant Doffmeter installed on Model X Draper Loom measures exact yardage and automatically cuts off loom at predetermined number of yards.

way that when the belt is tightened, a wedge-shaped washer slides along the face of the arm until it contacts one edge of the sword. This movement applies pressure between the hook on the arm and the hook on the washer, thus clamping opposite sides of the sword to keep the arm from loosening.

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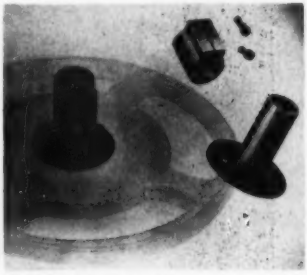
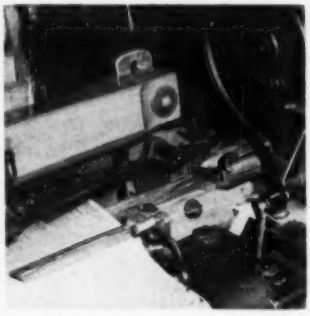


Hand-Wheel Hub Easily Installed or Removed

New hand-wheel hub for looms that requires no keys or setscrews is available from A & W Machine Co., Charlton City, Mass. The new hub, of welded construction, allows the handwheel to be removed without the use of a wheel puller or without being driven off with a bar and hammer. The hub can be used on badly worn shafts.

•



British Device For Jerked-in Filling

Jerked-in filling is said to be prevented with a device developed by British Northrop Loom Co., Blackburn, England. The device uses a hook to collect the ends from both the empty bobbin and the new bobbin at the transfer.

Both filling ends are thus said to be drawn away from the path of the shuttle. The attachment can be fitted to single- and multishuttle looms.

•

Improved Checkstrap Features Satin Finish

The "Bicut" checkstrap with a smooth satin-like finish is a new development of J. E. Rhoads & Sons, 39 N. Sixth St., Philadelphia 6, Pa. The finish is said to

"Call Celanese for

ACETIC ACID"

- **Overnight delivery by tank truck**
- **Highest quality U.S.P.**
- **Expanded production from new plants**

More and more textile manufacturers depend on Celanese for their supplies of acetic acid. New production units, expanded storage and shipping facilities have made Celanese your most dependable source for highest quality acetic acid.

For complete information about prices, technical data, terminal facilities, write Celanese Corporation of America, Chemical Division, Dept. 571-K, 180 Madison Avenue, New York 16, N. Y.

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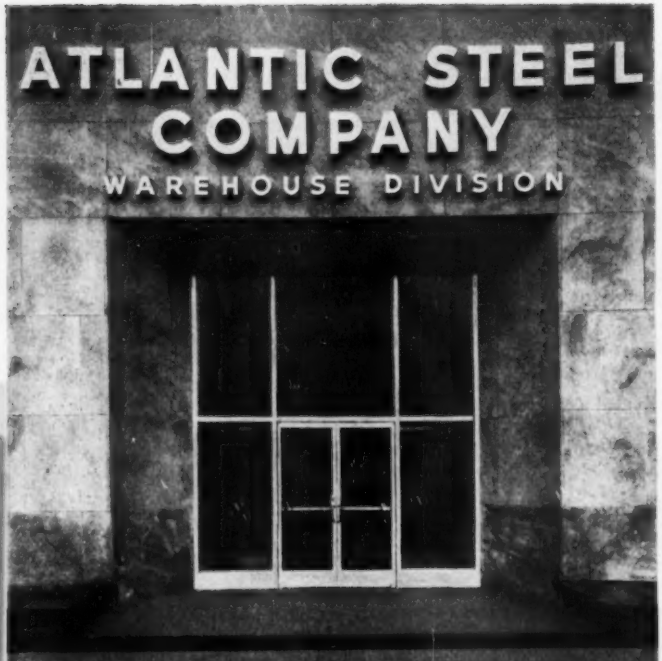

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OUR brand-spanking new warehouse and office building make it possible to offer customers a wider variety of products and services—plus faster shipments to any point in the Southeast.

64,400 Square Feet of Floor Space

Not all of our 64,400 square feet of warehouse space is used now to stock steel, copper and other products — including chain link fence, Quonset buildings, and playground equipment — but as these items become more readily available, we hope to keep them in stock for instant shipment.

If you would like for us to send you current stock lists as issued, drop us a line or give us a ring.

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ATLANTIC, GA.

"Service In Step With Southern Progress"

permit a more efficient checking action of the strap.

In the finishing of its specially tanned strapping leathers, the company is said to press more than the usual amount of the leather fibers into the area designated by thickness specifications. This "extra" gives the "Bicut" checkstrap added strength, since the strength of the leather depends on the closeness with which these fibers knit together.

•

Carpet-Loom Beam Is All Steel

A new all-steel, all-welded carpet-loom beam has been announced by Edward J. McBride Co., Inc., Adams Ave. and Leiper St., Philadelphia, Pa. To meet the requirements of individual mills, this new beam can be furnished with bar lock for warp ends or with key slots.

Twisting, Winding, Etc.

(*Continued from page 116*)

When for any reason the slasher is stopped off, the drying box cools in a matter of seconds; thus yarn damage from exposure to high temperatures for too long a time is avoided. In addition, all parts of the unit are readily accessible so that the new model lends itself to easy cleaning.

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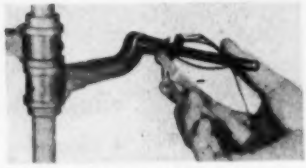

Tube to Cone Switching Made Easy

A snap-on cone holder developed by Edward J. McBride Co., Adams Ave. and Leiper St., Philadelphia, Pa., makes possible immediate switching from tubes to cones in creeling. No setscrews or other mechanical adjustments are required. The holder snaps firmly into position, yet is free to revolve.

•

High-Capacity Warper Beams Available

A new line of large-package "double-capacity" high-speed warper beams has been developed by Allen Beam Co., 156 River Rd., New Bedford, Mass. The new line is designated as Series M, and these

A man with a hate

● There's no halfway feeling about fire and its resulting destruction with an expert fire protection engineer... he actually hates to see a little fire roar into a raging inferno and create a sizeable loss.

This personal sense of responsibility is inherent with C-O-TWO Fire Protection Engineers... a definite plus in your behalf. Whether its fire detecting or fire extinguishing ... portables or built-in systems... C-O-TWO means top quality backed by experienced engineering that results in operating superiority for you at all times.

With C-O-TWO Fire Protection Equipment, simplicity, practicability, longevity and minimum maintenance are built-in features that guarantee fast, positive action the instant fire strikes. Furthermore, extensive manufacturing and field installation skills, together with approvals such as the Underwriters' Laboratories, Inc., Factory Mutual Laboratories, Armed Forces and Government Bureaus assure you of the finest in modern fire protection equipment.

Rushed production periods and future expansions are some of the many problems carefully considered in a plant-wide firesafety recommendation by C-O-TWO Fire Protection Engineers... the prime objective always being the best type fire protection equipment for the particular fire hazard concerned.

WHEN BUSINESS STOPS . . . INCOME STOPS!

Don't take chances with your investment. Secure the benefits of highly efficient fire protection engineering today... our extensive experience over the years is at your disposal without obligation. Get the facts now!

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Squeez-Grip Carbon Dioxide Type Fire Extinguishers
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Some steel products are in short supply but over-all stocks are still large, diversified

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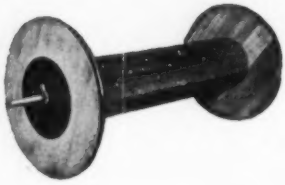
Joseph T. Ryerson & Son, Inc. Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles, San Francisco, Seattle. Spokane.



SHELL ROLLS

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CLOTH ROLLS

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HIGH SPEED WARPER BEAMS

LOOM BEAMS

TEMPLE ROLLS

WOOD TOP ROLLS

TOP WORKMANSHIP
TOP QUALITY
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WILLIAM McCASKIE, INC.

Wooden Textile Specialties

FORGE ROAD **WESTPORT, MASS.**

beams in the large-package series now on sale are adapted for all kinds of fibers.

The new warper beam has 36-in. heads, that give it a yarn capacity of approximately 80% more than previous beams. Construction is heavier throughout, with larger barrels containing heavier cast-iron reinforcement, a heavier shaft with cast-iron hub extending through the head, and heavier reinforcing rods and end plates than previous models.

•

Lease-String Indicator Warns Beamers With a Light

An indicator, attachable to the head end of beamers, that lights a warning light to beamer operators when a lease string is about to appear has been patented and made available to mills by Herman T. Pickren of Sylacauga, Ala., and Talladega Foundry & Machine Co., Talladega, Ala.

The lease-string indicator, developed on the job at Avondale Mills, permits the beamer to be run at higher speeds and reduces beamer downtime. It is disengageable for resetting purposes.

Measuring and Testing

(*Continued from* page 133)

Instruments Div., Wayne & Windrim Aves., Philadelphia 44, Pa.

This instrument combines within a single case measurement and recording on a 12-in. chart, automatic positioning of the set-point index as directed by a transparent program cam, and automatic program control of the variable.

The standard Brown continuous-balance system is used for measurement. It is available in both electric and pneumatic control.

An adjustable Micro-Switch assembly, operated by the cam, is optionally available. The switch assembly is used to de-energize the cam-drive motor, shut down equipment, operate signal lights, or perform other electrical functions at the user's option.

•

Instrument Pen Eliminates Flooding and Choking

New industrial instrument pens that eliminate flooding and reduce paper plugging and choking have been designed by Minneapolis-Honeywell Regulator Co., Brown Instruments Div., Wayne & Windrim Aves., Philadelphia 44, Pa., for its strip-chart electronic instruments.

The new pens have removable tips and a new reservoir construction that eliminates flooding because the effective ink level always remains below the writing tip of the pen.

•

Self-Operating Temperature Regulator Works on Liquid-Expansion Principles

A new line of self-operated temperature regulators that are available in either direct- or reverse-acting types of heating and cool-

EASY

TO READ

EASY TO OPERATE

And you get long, *accurate* service with these Fairbanks-Morse built-in advantages.

Fairbanks-Morse Dial Scales speed weighing because they're designed for easiest reading. The weighmen can read the correct weight at a glance. Even with drop weights applied, weights are still read right at the point of the indicator . . . no mental calculations are required. It's easier . . . faster . . . more accurate. Human errors are eliminated.

Check these features that mean fast, accurate weighing, with your Fairbanks-Morse weighing expert or write Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago 5, Ill.

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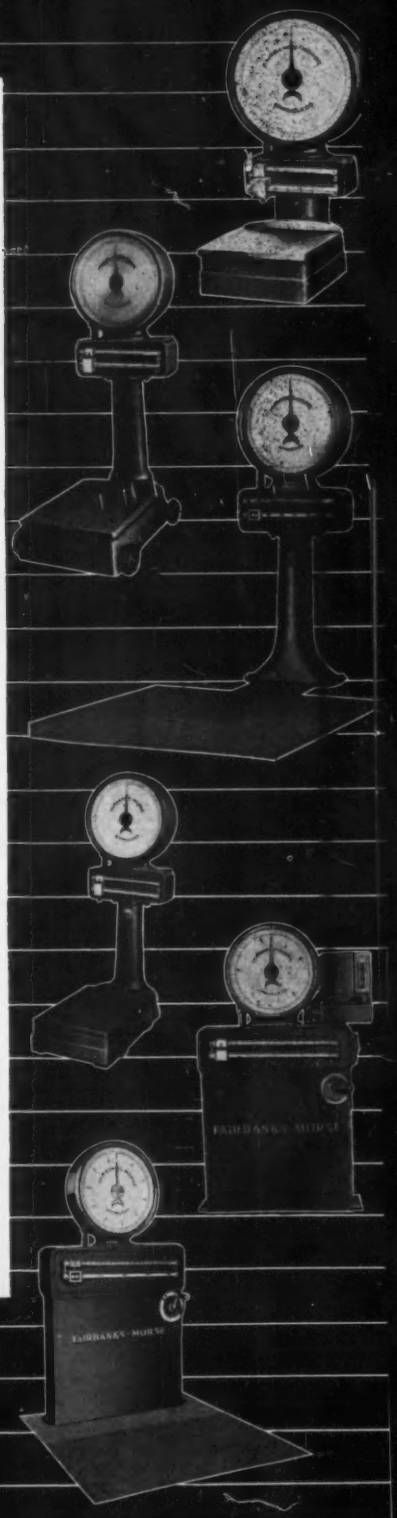
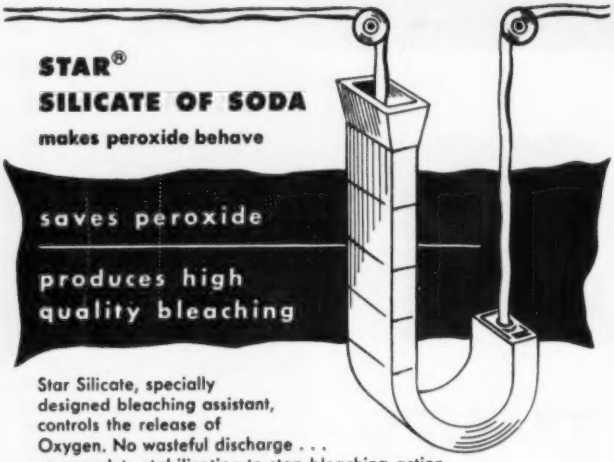
FARM MACHINERY • MAGNETOS





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SILICATE OF SODA
makes peroxide behave

saves peroxide

produces high quality bleaching

Star Silicate, specially designed bleaching assistant, controls the release of Oxygen. No wasteful discharge . . . no complete stabilization to stop bleaching action. Star just frees the Oxygen evenly.

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MILTON
A TIME TESTED LINE
Engineered for Production
MILTON WARP BEAMS
for BROAD, NARROW FABRIC, RIBBON, VELVET, CARPET LOOMS

BROADLOOM BEAMS

For C & K Looms (pictured) and Draper Looms (with let-off gear). Steel barrels, cast iron flanges.

RIBBON LOOM BEAMS

Steel barrels, with your choice of adjustable head and fixed shaft (pictured) or fixed head with removable shaft.

Write for Catalog 45 (Steel) or Catalog 45-A (Light Metal)

GET THE COMPLETE STORY

MILTON MACHINE WORKS, INC.
DESIGNERS • ENGINEERS • MANUFACTURERS
MILTON, PENNA.

ing applications has been brought out by Farris Stacon Corp., Commercial Ave., Palisades Park, N. J. Called Series-V regulators, they can be used to handle—through their valves—steam, liquids, gases, and all fluids not corrosive to brass.

The regulators operate on the principle of liquid expansion, and so valve movements are gradual as the temperature changes one way or another.

•

Drying Control Equipment For Slashers, Dryers

New automatic control equipment for the Drimeter has been announced by Fielden Instrument Corp., 2920 N. Fourth St., Philadelphia 33, Pa. The equipment provides a continuous indication and record of the moisture content in warp or cloth and automatically controls the slasher or dryer to correct any deviation from the desired moisture content.

The equipment can be used on any type of slasher or fabric dryer.

•

Three Sensitivity Attachments Speed Process-Operation Analysis

The three instruments detailed below were developed by Beckman Instruments, Inc., 820 Mission St., South Pasadena, Calif., to simplify and make more precise the operation of the company spectrophotometric and color-control procedures.

Photomultiplier attachment for the company line of spectrophotometers makes possible an over-all simplification gain from 100 to 1,000 times that of standard ultraviolet-sensitive tubes.

Battery power regulator assures accurate current-consumption determinations and a minimum of battery maintenance when measurements are made with the company's Model-DU spectrophotometer.

New flow Colorimeter simplifies the continuous analysis and control of flowing or static streams in liquid or gaseous processes and is accurate to 0.5%.

•

Rapid Laboratory Electro-Analysis Possible With New Instrument

Four separate analyses, either independent or duplicate, can be run simultaneously with a new Electro-Analyzer that is available from Fisher Scientific Co., 717 Forbes St., Pittsburgh 19, Pa. Each spindle or station is equipped with its own independent components for complete flexibility of schedule. The power provided is 10 v. at 10 amp. A.c. ripple, a serious shortcoming in earlier instruments, is held to less than 2%. A wide variety of accessories is available.

•

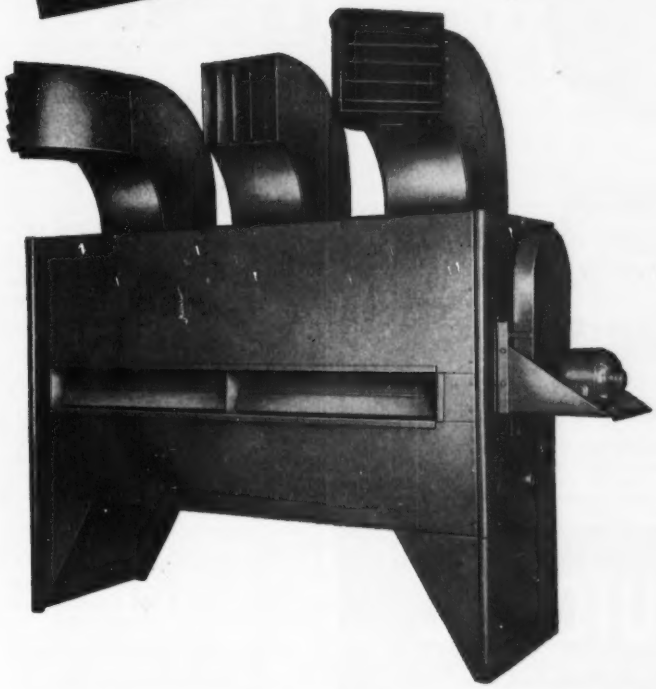
Temperature Measurement Obtainable on Nylon Fabrics Being Finished

A "radiamatic" pyrometer device that measures the actual temperature of nylon

Another STURTEVANT DEVELOPMENT!

IMPROVED INDUSTRIAL HEATER

for heating large plant areas



Two *new* Industrial Heaters with wide applications:

GENERAL PURPOSE HEATER
for manufacturing areas, warehouses, garages, commercial buildings — with standard heating coils.

HEAVY DUTY HEATER
for continuous-duty high-pressure systems, or industrial process work — with wrought iron heating coils.

EXCLUSIVE STURTEVANT FEATURES

HEAVY DUTY HEATERS—For rugged service, wrought iron 1" pipe is used instead of copper tubing. Tapered steel fins are metallically bonded to the pipe. Solder bath provides permanent bonding and corrosion-resisting external coating. Internal steam distributing pipes are also wrought iron, protect against freezing. *The entire coil assembly is as rugged as the connecting steam lines.*

SMOOTH EXTERIORS—Die-formed casings with rounded corners eliminate accident-causing sharp edges and dirt-catching pockets. Removable panels aid inspection.

ONE WARRANTY—Only Westinghouse makes all principal components—fans, heating coils and motors. You get unit engineering and single equipment responsibility.

Other features are:

WIDE RANGE OF SIZES—Heat output up to 2,500,000 btu/hr; air volumes up to 25,000 cfm; steam pressures up to 200 psig. ACCESSORIES—Filter boxes optional for mechanical air cleaning. Mixing boxes optional for proportioning outside and re-circulated air.

For more information, contact your nearest Westinghouse Sturtevant office. Or write for Catalog 1510, soon off the press. Address Westinghouse Electric Corp., Sturtevant Division, Hyde Park, Boston 36, Mass.

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NON-FLUID OIL

TRADE MARK REGISTERED

The Original Comb Box Lubricant

The initial applications of NON-FLUID OIL in the Textile Industry, over 50 years ago, were made in comb-box lubrication. Its acceptance by practically the entire Textile Industry during the ensuing years is based on the fact that NON-FLUID OIL outlasts ordinary oils six to eight times and remains in the comb-box without slinging off onto the card fillet and the goods or sliver in process.

Heat is usually a sign of wear and power waste, so switch to NON-FLUID OIL and enjoy cool, trouble-free carding. Write for free testing sample of NON-FLUID OIL and Bulletin T5 TW.

NEW YORK & NEW JERSEY LUBRICANT CO.

292 Madison Avenue, New York 17, N. Y. Works: Newark, N. J.

SOUTHERN DISTRICT MANAGER: Lewis W. Thomason, Jr., Charlotte, N. C. WAREHOUSES: Atlanta, Ga.—Birmingham, Ala.—Charlotte, N. C.—Chicago, Ill.—Columbus, Ga.—Detroit, Mich.—Greensboro, N. C.—Greenville, S. C.—Providence, R. I. St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

fabric during finishing—instead of just the air surrounding it—has been developed by Industrial Div., Minneapolis-Honeywell Regulator Co., 4509 Wayne Ave., Philadelphia 44, Pa.

In operation, the radiated heat energy is measured from the cloth as it passes by. This exact measurement is obtained by the focusing of the radiated energy through a lens onto sensitive elements, much the same way the sun's rays are focused through a magnifying glass. This temperature taking can be done from as far away as one foot from the moving cloth.

•

Lighting Unit Blends Colors To Produce Daylight

Cotton classing is being done on the West Coast under a new lighting unit that uses colored fluorescent tubes to produce light said to be equal in color temperature (6,000° K.) to daylight. The unit, which uses standard slimline lamps, is made by John P. Filbert Co., Inc., 2007 S. Vermont Ave., Los Angeles 7, Calif. A desk-size laboratory color-matching unit is also available.

•

New Color-Matching Units More Powerful

Two new color-matching lights with a high-intensity North-sky light several times as bright as previous units have been developed by Macbeth Daylighting Corp., Newburgh, N. Y. An improved diffusing glass is said to provide greater diffusion with higher efficiency. Super skylight BX848 is recommended for dyehouse use; Super Skylight BX1014 is designed for shading-room service. Both units produce North-sky daylight and horizon sunlight.

Accessories and Supplies

(Continued from page 128)

a position that the quills are fed automatically from the stripping machine without interfering with the operation of the stripper.

Made of tool steel, the machines operate at a rate of 25 to 40 quills per min., and the abrasive rolls and degreasing roll will last 8 hr. before changing, according to the manufacturer. The quill polisher and degreaser require 6 sq. ft. of floor space each.

•

Medium-Duty Grinder Maintains Knives and Blades

An automatic medium-duty knife grinder, called the "NL" grinder, designed for the fast, accurate care of many types of knives, including rag-cutter knives, trimmers, light shear blades, paper-cutting and stock-cutter knives, and many other types, has been introduced by Samuel C. Rogers & Co., 183-205 Dutton Ave., Buffalo 11, N. Y. The grinder has an all-steel-welded cabinet base and is available in six standard sizes to handle knives 60, 66, 78, 90, 102, and 110 in. long.

Designed for speed and precision, the

DOW CORNING

Silicone Notes

ON LUBRICATION

REFERENCE NO. SL-53

FILE SILICONE LUBRICANTS

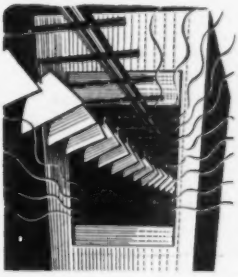
Make sure you have basic data sheets 44-2a. If misplaced write Department AJ-23

DOW CORNING CORPORATION
Midland, Michigan

DOW CORNING GREASE 41

Bearings working at 375°F. in an oven conveyor system for baking the finish on electrical parts, failed frequently in spite of weekly relubrication. And many finished parts had to be rejected because of flaws caused by oil bleeding out of the bearings and dripping onto the uncured paint. Since using Dow Corning 41 Grease, bearing failure and rejects caused by melting grease have been eliminated, and the bearings have to be relubricated only twice a year.

After more than 30 months of service, conveyor bearings lubricated with Dow Corning 41 Grease are still running smoothly through an enamel drying oven operating at 300°F.

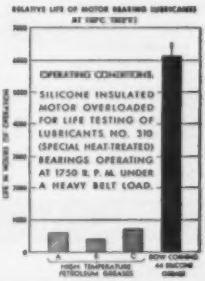


Bearing failures have been eliminated, maintenance and lubrication costs have been reduced to the vanishing point; production has been increased by at least the $100 worth of parts a day that were formerly rejected because the finish was spoiled by the dried-up, graphite-kerosene lubricant that fell down from the bearings.

As an antiseize agent on the die threads of glass forming machines, Dow Corning 41 Grease makes it easy to take dies apart even after 6 months of operation at 340-380°F. Similarly, die assemblies used in molding phenolic closures formerly froze so tight that a welding torch was used to cut the dies and bolts apart. The same assemblies lubricated with Dow Corning 41 are easy to disassemble after long exposure to heat and steam. Hold-down bolts on rubber and plastic presses are also lubricated with Dow Corning 41 to prevent seizure.

DOW CORNING GREASE 44

Count the number of conventional motors you have in your plant. Multiply that number by $4.52 and you have the average yearly cost of lubricating these motors plus the cost of motor failure caused by improper lubrication. With an estimated 10 to 15 million motors now in service, American industry spends 45 to 67 million dollars a year that might be saved by the use of Dow Corning Silicone Grease 44. That possibility is based on the performance of this Dow Corning Silicone grease in about half a million cartridge ball bearings used in a widely advertised line of industrial motors. Experience has proved that these bearings, prelubricated for life with Dow Corning 44, require no further attention.


OPERATING CONDITIONS:
SILICONE INSULATED MOTOR OVERLOADED FOR LIFE TESTING OF LUBRICANTS. NO. 310 (SPECIAL HEAT-TREATED) BEARINGS OPERATING AT 1750 R. P. M. UNDER A HEAVY BELT LOAD.
A
B
C
DOW CORNING 44 SILICONE GREASE

Annealing Ovens at 1400°F are located only 2 feet from bearings on motor directly coupled to forced draft fans. In spite of frequent relubrication with organic greases these bearings had a service life of about 6 months. The electrical foreman finally installed bearings prelubricated with Dow Corning Grease 44. These bearings have never been relubricated and they are still in service after about 2 years of operation.

Such performance confirms the testing done by Dow Corning, by bearing manufacturers and by the military establishment. It indicates that you can expect Dow Corning Silicone Grease 44 to last at least 10 times longer than high temperature petroleum grease.

DOW CORNING CORPORATION • MIDLAND, MICHIGAN

DOW CORNING SILICONES

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CANADA: Fiberglas Canada Ltd., 50 St. Clair Avenue West, Toronto, Ontario ENGLAND: Midland Silicones Ltd., 49 Park Lane, London, W. 1

 For more information, write direct or use Reader Service post card.

How to speed production with MAGNIFIERS

New! Illuminated 10X Pocket Magnifier

WRITE for new handbook and catalog, "Industrial Magnifiers—How to Choose and Use Them." Bausch & Lomb Optical Company, 50111 Bausch St., Rochester 2, N. Y.

Cut waste, get faster, surer inspection by fitting the magnifier to the job. This new Bausch & Lomb Illuminated Coddington floods entire viewing field with bright light *through* the lens, permitting quick, accurate inspection on the spot, without need for outside lighting. Image quality is excellent! Carry this new magnifier with you always—anywhere.....$7.50

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Absolutely uniform and dependable. Careful quality control assures maximum performance in your mill.

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The Hubinger technical staff and laboratories are widely recognized for their thorough and practical knowledge of the use of starch for textiles. Their experience assures you of the *best* product, *tailor-made* to fit *your specific needs*. Consult us on any production problem—at no obligation, of course.

grinder incorporates an electric table drive, including special control switches, and a 1½-hp. special reversing motor. Table speeds are variable. Over-all grinder weight is from 1,800 to 3,500 lb.

•

High-Pressure Booster Gun Eliminates Need for Power-Operated Lubricator

A new lubricating gun offered by Lincoln Engineering Co., 5742 Natural Bridge Ave., St. Louis 20, Mo., can serve in three ways: (1) in lubricating of bearings on industrial machinery that require a small quantity of lubricant at extremely high pressure, (2) as an auxiliary high-pressure lubricator to service bearings requiring injection of limited quantities of special-purpose lubricants, and (3) for cracking frozen or clogged bearings without use of a power-operated gun.

•

Adjustable Floor Polisher Has Ease of Maneuverability

A line of 14- to 19-in.-brush floor-scrubbing and polishing machines is now made with adjustable handles by Hild Floor Machine Co., 740 W. Washington Blvd., Chicago 6, Ill. By the mere setting of a wing nut, the handle can be raised or lowered to the operating position that is most comfortable for tall or short operators. This new feature is now standard on all except the company's two smallest models.

•

New Fire Extinguisher Of Dry-Chemical Type

A new member has been added to the family of dry-chemical fire extinguishers made by The Fyr-Fyter Co., Dayton 1, Ohio. A combination of stainless steel and aluminum, the 20-lb. size weighs only 14 lb. 12 oz. empty and 37 lb. 2 oz. full. A 30-lb. size is also available.

The new models are tested to 500-lb. pressure and in many cases have gone to 1,250 lb. before rupturing. Operating pressure is from about 150 lb. initially to about 50 lb. at the finish.

•

New Agents Clean Machine Parts by Cold Dipping

A remarkable cleaning job is claimed for "Kleenapart" and "Kleenakarb" new cleaning agents developed by The Selig Co., 336-350 Marietta St., N.W., Atlanta 1, Ga. The agents will clean valves, gears, sprockets, frames, chains, screens, and all machine parts. The removal of oil, grease, dirt, grime, carbon, and other foreign matter is accomplished by a simple "cold-dipping" process that requires no attention, it is claimed.

•

New Solvent Developed For Cleaning Spindles

A new solvent-type cleaner, Magnus 751, has been developed by Magnus Chemical Co., Inc., South Ave., Garwood, N. J., to

(Advertisement)

WESTON TAG

Thermometers

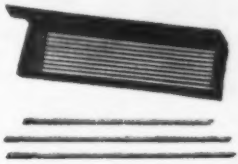
in all forms—ranges—stem lengths—connections

Whether your requirement calls for certified laboratory thermometers . . . or rugged all-metal industrial types . . . or thermometers for remote reading . . . you'll find *exactly* what you require in the Weston-TAG line—*the most comprehensive line of quality thermometers ever offered by ONE manufacturer.* Literature on request. WESTON Electrical Instrument Corporation, 617 Frelinghuysen Avenue, Newark 5, New Jersey.

Laboratory

ALL-METAL

—have readable, dial-type scales and corrosion-resisting stainless steel stems—stem lengths from 2" to 24"—ranges from low as −100°F. to high as 1000°F.—accuracy ½ of 1% of thermometer range.



GLASS

—certified sets of ASTM Testing thermometers with overlapping ranges in protective case. Ranges from −36°F. to high as 760°F. Also precision and standard etched stem thermometers for general testing.

Industrial

ALL-METAL

—provide unmatched readability and durability—accuracy within 1% of thermometer range. Available in all types, ranges and stem lengths (2½" to 72") for all requirements.

GLASS (Metal Case)

—available in all forms, all ranges, stem lengths and connections. Accuracy within one scale division. Also submarine types, metal and cupcase thermometers.

Remote Reading

ELECTRICAL

—resistor bulb sensing element permits mounting indicator any distance away from point of measurement. *Multiple* remote readings also possible by use of selector switch and several bulbs.

PRESSURE ACTUATED

—for remote reading, in 5, 6 and 8" dial sizes. Ranges from low as −325°F. to high as 1000°F. Accuracy one scale division unaffected by vibration or severe shock. Cases of iron, brass, or plastic.

WESTON *Temperature Instruments*

9413

—TO INDICATE — RECORD — CONTROL

"TAG" Automatic Controllers Record Temperature, Pressure

Pressure, vacuum or temperature can be automatically regulated and recorded with the Pneumatic Recorder-Controllers produced by TAGliabue Instruments Div., Dept. 67, Weston Electrical Instrument Corp., Newark 5, N. J. These devices maintain conditions for which they are set by varying control line air pressure, which operates a diaphragm valve to regulate flow of fluid (gas, steam, liquid) to the equipment being controlled. At the same time, the instrument continuously records actual temperature or pressure on a circular chart.

Operating on an air supply of 18 p.s.i., TAG Recorder-Controllers handle temperatures between −100°F. and 1000°F., vacuum as great as 30" mercury, or pressures up to 7500 p.s.i.

"TAG" Temperature Recorders Chart from −300° to +1000°F.

Accurate written records of varying temperatures are charted by the Temperature Recorders produced by TAGliabue Instruments Div., Dept. 67, Weston Electrical Instrument Corp., Newark 5, N. J. Temperatures as low as −300°F. or as high as +1000°F. can be recorded with these versatile instruments.

Various types of actuations in TAG Temperature Recorders achieve scale expansion for utmost precision over the working ranges. Interchangeable tube systems are laboratory calibrated at the factory. A safety link provides over-range protection. Details are given in Catalog 1210.

"TAG" Pneumatic Controllers Govern Temperature, Pressure

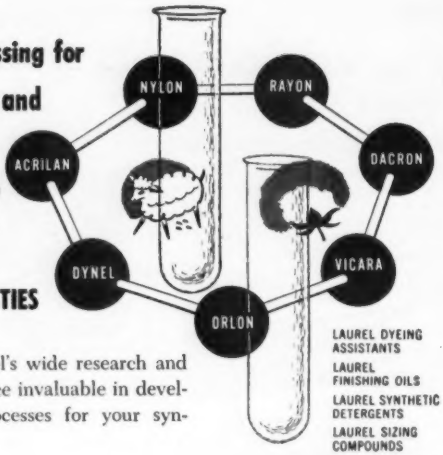
Pressure, vacuum or temperature can be accurately regulated by the Pneumatic Controllers engineered by TAGliabue Instruments Div., Dept. 67, Weston Electrical Instrument Corp., Newark 5, N. J. These trustworthy devices maintain the conditions for which they are set by varying air pressure in a control line, which in turn operates a diaphragm valve to increase or decrease the flow of fluid (air, gas, steam, liquid) to the equipment being controlled.

Operating on an air supply of 18 p.s.i. pressure, TAG controllers handle temperatures between −100°F. and 1000°F., or pressures between 30" vacuum and 7500 p.s.i.

Smoother processing for your synthetics and blends with

Laurel

TEXTILE SPECIALTIES



LAUREL DYEING ASSISTANTS
LAUREL FINISHING OILS
LAUREL SYNTHETIC DETERGENTS
LAUREL SIZING COMPOUNDS
LAUREL ANTISTATIC COMPOUNDS

You will find Laurel's wide research and processing experience invaluable in developing practical processes for your synthetics and blends.

For nearly forty-five years, leading processors have looked to Laurel for help in eliminating processing "headaches." Why not try us? Write, wire or call.

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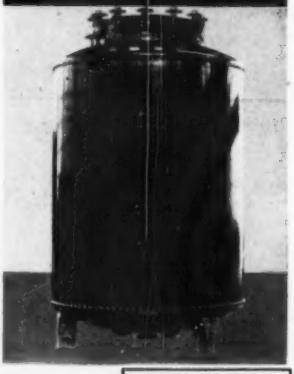
COLE
PRESSURE VESSELS FOR TEXTILE LIQUIDS



• Cole builds vessels to your specifications — dye-vats, kiers, starch-kettles, acid tanks, jib boxes, or other processing vessels for the finishing and dyeing industry . . . in stainless steel, nickel-clad steel, or of standard steel lined with monel metal.

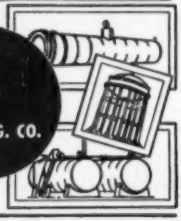
Our long experience in the design and fabrication of vessels for the textile industry may be of help to you.

•

Write for latest Cole catalog— "Tank Talk"

Established 1854

R. D. COLE MFG. CO.
NEWNAN, GEORGIA



ELEVATED TANKS • VESSELS • CYLINDERS
TOWERS • BINS • STANDPIPES

clean spinning frame spindles. A cleaning solution made of two parts Magnus 751 to one part water is said to thoroughly clean spindles in a half hour. If a faster cleaning is desired, a Magnus Aja-Dip cleaning machine will do the work in 15 min.

After they are removed, spindles should be given a simple water rinse or a rinse in safety solvent.

•

Equipment Rapidly Copies Office Records up to 14 in. Wide

Photo-exact finished copies of any office record can now be made in less than a minute without developing, washing, fixing, or drying, with an office setup developed by Remington Rand Inc., 315 Fourth Ave., New York, N. Y. Called "Copyfix," the development consists of two pieces of table equipment that make finished, positive copies, regardless of type or color, from originals up to 14 in. wide in any length.

The machine operates from any standard electrical outlet. No darkroom is needed.

•

Improved Multipurpose Grease

An improved multipurpose grease for use in general industrial applications—Texaco Multifak grease—has been introduced by The Texas Co., 135 E. 42nd St., New York, N. Y. The grease is recommended for use in situations that require one high-grade multipurpose grease for a variety of operations.

The grease is said to have excellent shear stability, outstanding resistance against water washing, and good pumpability at low temperatures.

•

Heat-Resistant Grease Stands Continuous 300° Operation

A new premium antifriction bearing lubricant—Texaco "High Temp" grease—that considerably extends the efficient range of operation of ball, roller, and plain bearings at high temperatures, has been announced by the Texas Co., 135 E. 42nd St., N. Y. The new grease exceeds established military and industrial standards in affording unusual protection at temperatures up to 300° F. for continuous operation and 350° F. for intermittent operation.

An unusual characteristic of the new grease is the efficiency of its performance at high speeds as revealed in special ultra-high-speed endurance tests developed at Texaco's Beacon Laboratories.

Its water resistance makes the new "High-Temp" grease applicable in operations where long retention of grease and resistance to washing out are factors to consider.

•

Piece-Marking Tag Withstands Washing

A new marking tag designed specifically for the textile trade has been developed by Liberty Marking Tag Co., 27 Hooper St., Brooklyn, N. Y.

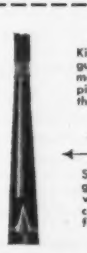
Made of tough Permafiber stock—used successfully in the laundry and dry-clean-

ONLY KIDDE EXTINGUISHERS HAVE IT!

Only Kidde extinguishers have the patented Diffuser Horn that blankets fire with a cloud-like pattern of dry chemical, that cuts down on the danger from splashing of burning liquids. Even an inexperienced operator can attack a fire without fear from behind the "cool" protective wall of powder that's set up.

Only Kidde Dry Chemical Extinguishers give you all these extras.

Remember, if you want all the fire protection you can get for your money, get a Kidde Dry Chemical Extinguisher.



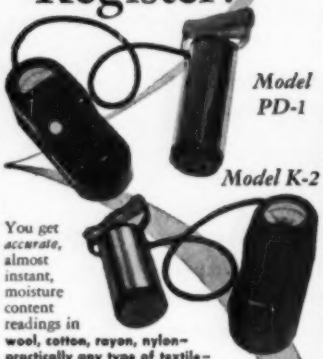
Kidde Dry Chemical Extinguishers can be used in normal standing position. Just pick up, point the horn, pull the trigger.

Streamlined diffuser horn gives better discharge pattern which provides greater space coverage and more protection for the operator.

Kidde

Walter Kidde & Company, Inc.
1191 Main Street, Belleville 9, N. J.
Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.

Test moisture content *in* 3 *seconds* with Moisture Register!



Model PD-1

Model K-2

You get *accurate*, almost instant, moisture content readings in **wool, cotton, rayon, nylon—practically any type of textile**—when you use Moisture Register Model PD-1 or Model K-2.

Either model gives you "on-the-spot" readings with guaranteed accuracy. They're simple to operate, require no technical knowledge or skill, weigh only 6 pounds, easily portable.

Model PD-1 tests textiles in loose or compressed forms with 3" penetration. Model K-2 tests cones, beams, rolls and similar forms.

ONE YEAR GUARANTEE!

Use one of these instruments **FREE** for 10 days. No obligation! Prove for yourself that Moisture Register will help you maintain higher standards, iron out production headaches, add to your reputation as a manufacturer of quality products. Fill out coupon, mail today!

ELECTRONIC MOISTURE REGISTER

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☐ Please send me, *without obligation!* for 10-day free trial,
Model .....for use on .....
Enclosed find purchase order to cover trial period.

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COMPANY
STREET
CITY
STATE

☐ Please send me information on Moisture Register for use on .....

ing industries—Lok-Tite tags withstand washing or processing with no visible effect and no loss of markings. In addition, the specially designed rustproof clip attaches instantly and holds fast to a garment or piece with no chance of working loose or damaging the goods.

•

Coating Gives Stainless-Steel Surface to Any Metal

A new stainless-steel coating for all metal surfaces that can be applied by brush or spray gun has been developed by Steelcote Mfg. Co., 3418 Gratiot St., St. Louis, Mo. Cost of the coating is about 4¢ per square foot.

The stainless-steel coating will protect against rust, corrosion, and other types of deterioration caused by salt air and water, industrial atmospheres, alkalis, oils, greases, most strong acids, heat, cold, and sunlight. The film is nonflammable, odorless, and tasteless when dry.

•

Oil Streaks Erased From Fabrics

Oil spots and streaks and other stains on fabric can literally be "brushed off" with a new spot eraser (called the "Janie") available from R. S. Cowen Co., 130 W. 42nd St., New York 36, N. Y. The eraser, already in use in several textile mills, is made of fine, harmless, but efficient chemicals compressed into a solid that is then blown full of air bubbles to permit rapid fragmentation on contact when it is rubbed on cloth. The powder residue absorbs the stain and removes it when it is rubbed off.

•

1,000-W. Mercury Lamp Designed for Medium-Bay Areas

A new and highly efficient 1,000-w. mercury lamp for general industrial use where medium- or high-bay lighting is desired has been developed by the Lamp Div., General Electric Co., Nela Park, Cleveland 12, Ohio.

Producing 52,000 lumens, or 52 lumens per watt, the 14½-in. A-15 lamp is the most efficient GE general-lighting lamp in the mercury-lamp line. Its life rating is 3,000 hr. at 5 burning hr. per start, and 4,000 hr. at 10 burning hr. per start. It operates satisfactorily in any burning position.

The new light source was made to operate on 440 to 480 v. for highest effi-

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SPECIALIZED ENGINEERING

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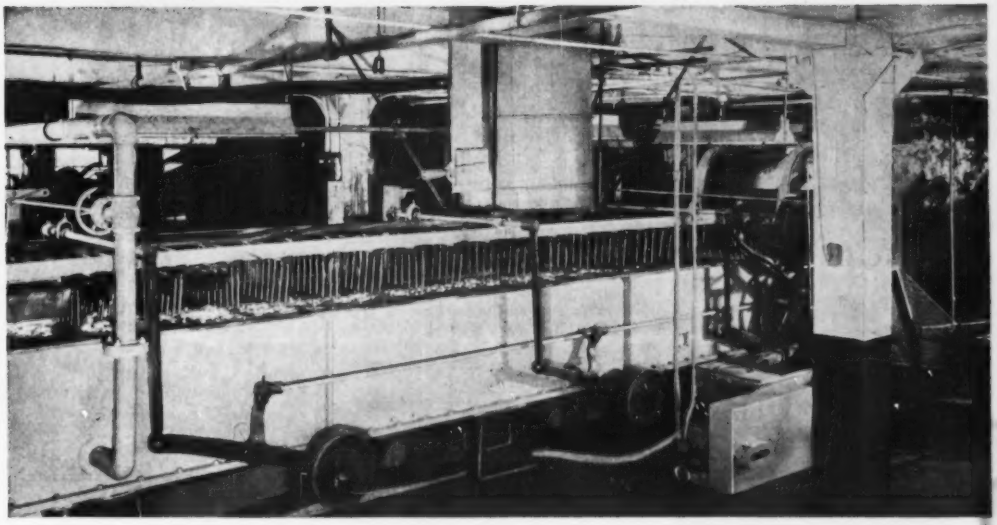

Upgrade Raw Wool at Low Cost with DU PONT PEROXIDES and BLEACHING PROCESSES

Continuous bleaching with "Albone" 35 hydrogen peroxide enables mills to scour and upgrade raw wool in one simple operation . . . insures high quality results with a minimum of special handling and supervision. Bleached wool is whiter, loftier, more uniform in color, and exhibits greatly improved dyeing characteristics—even with the addition of substantial quantities of yellow stock for special properties. As a result, saleability of the wool is increased.

The Du Pont continuous process for wool bleaching employs standard scouring equipment . . . is economical to install and maintain. Operating costs are low, too, for no additional labor is required. The wool is bleached in the last bowl of a five-bowl scouring train and continues to whiten for a period of about three weeks after it is bagged for storage. Costs for bleaching chemicals are reasonable—averaging only one-half to two cents per pound of wool treated in the continuous process.

Let Du Pont Help You With Your Wet Processing Problems

The excellent results obtained with Du Pont peroxides and processes for continuous wool bleaching are typical. Whatever your wet processing problem—continuous cotton or wool bleaching, batch cotton or wool bleaching, hosiery bleaching or vat oxidation—Du Pont technical and engineering men stand ready to help you. They'll be glad to show you how to get the most from your processing equipment and will explain the advantages of bleaching with "Albone" hydrogen peroxide. For more information, send in the coupon below.

DU PONT
PEROXIDES
FOR TEXTILE BLEACHING

Available in drums and tank cars { "Albone" 35 . . . . Hydrogen Peroxide 35% / "Albone" 50 . . . . Hydrogen Peroxide 50%

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BETTER THINGS FOR BETTER LIVING
. . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department
Wilmington 98, Delaware

Please send me more information on Du Pont peroxides and processes. I am interested in the following types of textile processing:

- ☐ Continuous Wool Bleaching
- ☐ Batch Bleaching of Cotton
- ☐ Vat Oxidation
- ☐ Continuous Cotton Bleaching
- ☐ Batch Bleaching of Woolens and Worsteds
- ☐ Hosiery Bleaching

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Package Dyers of Man-Made Fibers Since 1926

Key employees' service averages 15 years of package dyeing rayon, acetate, and nylon yarns. All these years of constant research and improvement are at your disposal. You can rely on Atlantic for top quality work.

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Atlantic Rayon CORPORATION

Dyers and Converters of Synthetic Yarns for All Industries

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NEW YORK REPRESENTATIVE

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★

ciency. This voltage also makes it possible to operate the lamp with a simple, low-cost ballast.

•

Stainless Steel in Liquid Form Prevents Corrosion

Liquid stainless steel, a protective coating consisting of actual stainless steel reduced by a new process to a microscopically fine form (flakes) and combined with vinyl plastics to form a quick-drying liquid coating, has been developed by Lockrey-Fater Co., 38-13 Tenth St., Long Island City, N. Y. The coating is said to offer impermeability to moisture of Type 18/8 No. 302 stainless steel in easy-to-apply form.

The liquid stainless steel can be applied by spraying or brushing.

Yarn Preparation

(*Continued from page 112*)

single-belt unit into a double-belt drafting system, with the top belt or apron replacing the standard Roth middle top roll and control roll. Specifically, the change-over consists of a Torrington needle-bearing middle top roll, two cages, two top synthetic aprons, two bottom synthetic aprons, a condenser assembly, and a hold-down spring for the cages. These parts will equip two spindles.

(2) The New Era filling spindle, since the filling bobbin has to fit into a loom shuttle, is necessarily of small diameter. Consequently the filling spindle does not adhere to the New Era warp-bobbin principle of supporting the sleeve that carries the package between two antifriction bearings. Antifriction bearings that would fit into such a restricted space at the top of the filling spindle would be so small that they would not be able to maintain today's high speeds and relatively heavy loads.

Instead, the main shaft is shorter, and it is the main shaft that mounts the two antifriction bearings, while the top of the spindle itself is solid. The top bearing is located just inside the lower end at about the center of the tape pull. The shorter distance between bearings on the filling spindle is reported to be entirely adequate for the lighter loads of filling spinning.

(3) The FS-3 and FS-3W drafting systems for roving, modifications of the FS-2 system, are not limited to staple lengths up to 2½ in., but process the synthetics with complete fiber control up to 3 in.

The main difference between the FS-2 and the FS-3 is that the roll stand has been lengthened on the latter, and provision has been made so that an auxiliary apron bar may be used. If the auxiliary bar is added, the FS-3 becomes the FS-3W drafting system for synthetic fibers from ⅞ to 3 in. The auxiliary apron bar can be used only when the roll spread from the front to the middle-bottom steel rolls, center to center, is 2⅛ in. or over.

At the 2⅛-in. setting or over, greater fiber control is obtained with the auxiliary apron bar, which acts as a carrier for the fibers in the front zone, forward to the

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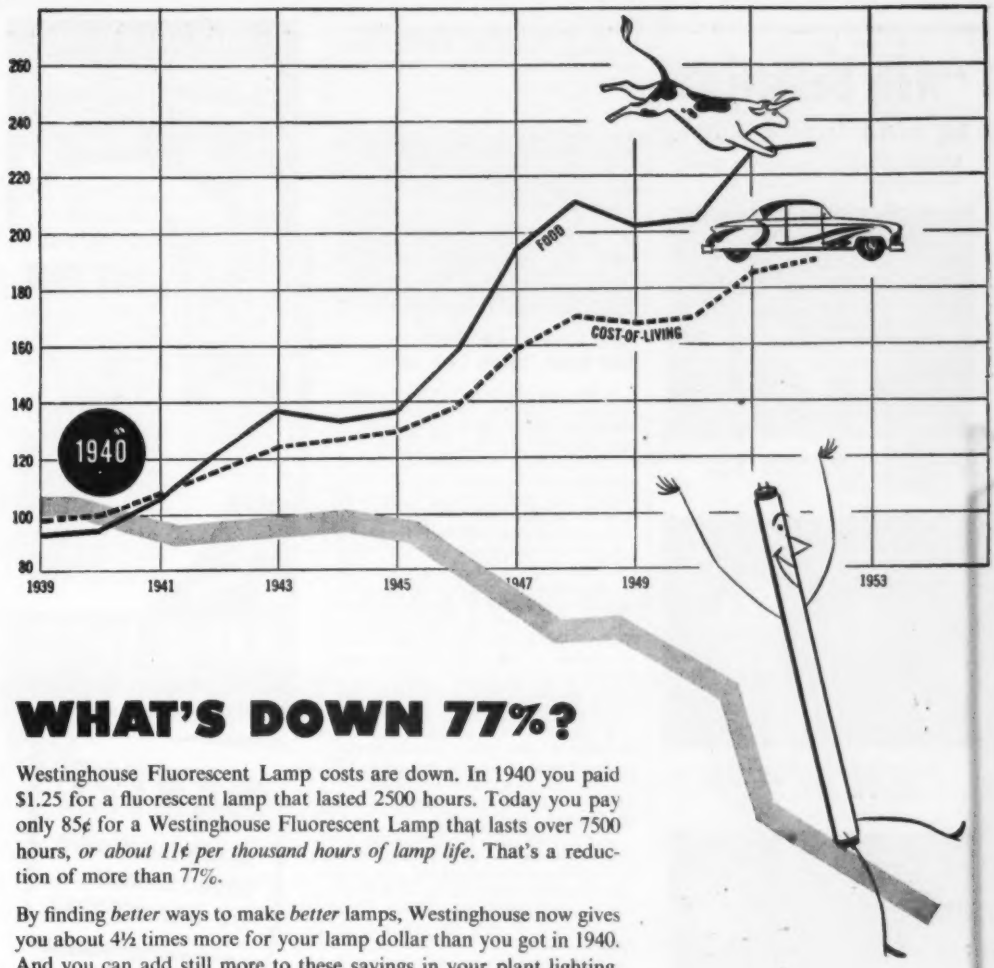
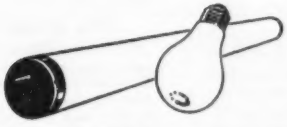


WHAT'S DOWN 77%?

Westinghouse Fluorescent Lamp costs are down. In 1940 you paid $1.25 for a fluorescent lamp that lasted 2500 hours. Today you pay only 85¢ for a Westinghouse Fluorescent Lamp that lasts over 7500 hours, *or about 11¢ per thousand hours of lamp life.* That's a reduction of more than 77%.

By finding *better* ways to make *better* lamps, Westinghouse now gives you about 4½ times more for your lamp dollar than you got in 1940. And you can add still more to these savings in your plant lighting. See the coupon below.

JUNK YOUR LAMPS AT 80% OF LIFE AND SAVE $120 PER 1000 LAMPS!



YOU CAN BE SURE...IF IT'S

Westinghouse

Westinghouse Lamp Division, Dept. 1038, Bloomfield, N. J.

If you're serious, I want proof. Let's see your new 20-minute color film: GROUP REPLACEMENT OF FLUORESCENT LAMPS. (Date) .....
at .....o'clock is convenient for us.

NAME .....
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"Well Satisfied"

Say Nathan Schwartz & Sons.

This firm has three Taylor-Stiles thread waste cutters:

1. A No. 38 cutter—rated capacity 2 tons an hour—shown cutting nylon waste.

2. A No. 15 staple cutter, shown cutting nylon sliver into uniform lengths for staple.

3. A "Giant, Jr.," a smaller capacity cutter for general purpose cutting.

There's an efficient Taylor-Stiles Cutter for every textile cutting purpose.

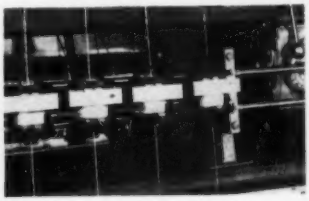
Write for four-page Folder 201, illustrating and describing Taylor-Stiles Cutters.

TAYLOR-STILES and Company
CUTTING MACHINES & KNIVES

15 Bridge Street, Riegelsville, New Jersey

nip of the front rolls. The manufacturer recommends using the FS-3W system auxiliary bar with synthetic fibers 2½ in. in length or over.

•



Ring Frames Can Spin Soft-Twist Yarns Like Mules

A new ring spinning frame for woolen-type yarns that has front rolls that are revolved as they draft is said to deliver a yarn similar to that spun on a mule. The frame is made by Textilmaschinenbau of Germany and is available in the U. S. and Canada from Stellite American Corp., 60 E. 42nd St., New York, N. Y.

In the new frame, a twist-draft assembly replaces the conventional front rolls. This twist-draft assembly has two drives—a drive for the draft rolls and a drive for the entire assembly that rotates the draft rolls around the axis of the roving to produce twist. The differential drive thus obtained is said to produce a wide range of drafts and twists.

The advantage of the mules can be combined with the efficiency of the ring spinning frame. This advantage is especially desirable in cases where loosely twisted yarns are required, i.e., for knit goods, filling, etc. These yarns obtain sufficient pretwist to withstand the strain of the travelers without breakage.

The cylinders in the completely enclosed twist-draft assembly are kept clean by two cleaner blades made of soft metal that clean the cylinder surface of dust and lint by means of centrifugal force. It is not necessary to stop the machines for special cleaning.

The machines are normally built with a 5½-in. gauge and 4-in. ring for tubes up to 13¾ in. in length. Maximum gauge available is 5 9/10 in. with a 4 18/25-in. ring.

•

Improved Rectilinear Comb Can Handle Long-Staple Synthetic Fiber

An improved rectilinear comb designed for use on wool and synthetic fibers from 2 to 6 in. in length and a special gill box for use with the comb have been developed by Officina Meccanica Sant'Andrea, of Italy. The U. S. representative is Ernest L. Frankl Associates, 22 E. 40th St., New York 16, N. Y.

The rectilinear worsted comb is equipped with can creel and can delivery for 15½x36-in. cans. The comb also has a rotating coiler head at the delivery to provide for a greater consistency of the fibers as well as to permit an increase of 40% of the stock delivered into the can.

In connection with the improved comb,

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INDUSTRIAL ELECTRONICS
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MORE IRON AND STEEL SCRAP . . . OF ALL KINDS!

Steel mills and foundries need more scrap.

Not just "production" scrap from metal-fabricating plants . . . but also all sorts of *idle* iron and steel—from all types of plants.

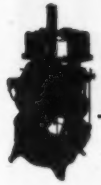
Search *your* plant for this idle metal . . . work with your local scrap dealer to increase supplies of badly-needed iron and steel scrap.

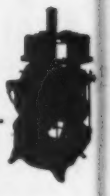
What to look for . . .

obsolete machines, tools and equipment, no-longer-used jigs and fixtures, worn-out or broken chains, wheels, pulleys, gears, pipe, tanks, drums and abandoned metal structures. Non-ferrous is needed, too!

McGRAW-HILL
PUBLISHING COMPANY, INC.
330 WEST 42nd STREET • NEW YORK 36, N.Y.

FOUR Great Hosiery Machines in ONE



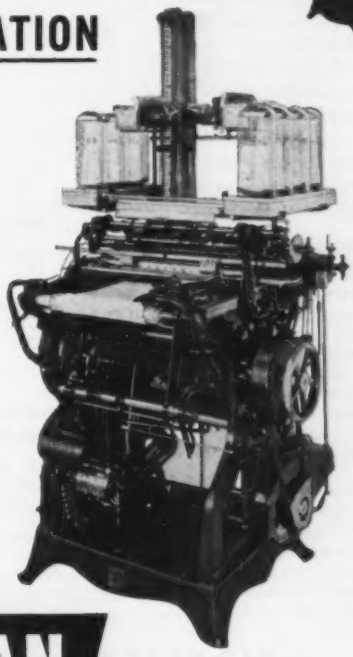


HIGH PRODUCTION

MORE EFFICIENT

GREATER ECONOMY

AUTOMATIC IN OPERATION



This WILDMAN Full-Fashioned Hosiery Machine assures HIGH PRODUCTION—16 to 20 stockings per head per 8 hours—24 machines per operator. The operator's daily production should average 16 dozen pair per 8 hours . . . You get a MORE EFFICIENT machine—positive design reduces mechanism failure at high speeds . . . The machine operates with GREATER ECONOMY—if needles must be taken out, or adjustments made, only one head is shut down—a top time-saving feature . . . And, you get, too, a machine AUTOMATIC IN OPERATION—after a stocking has been started it is not necessary to stop the machine before the stocking has been completed. It then automatically prepares itself to start a new stocking.

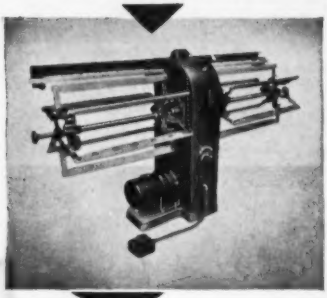
WILDMAN

MANUFACTURING COMPANY • NORRISTOWN • PENNSYLVANIA

INCREASE

operator productivity

25% to 100%



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SKEIN REELER

offers these improvements

- √ Automatic skein-weight control
- √ Variable speed control
- √ Free-end collapsible reels
- √ Adjustable reel size
- √ Adjustable yarn traverse
- √ Automatic brakemotor
- √ Pedal brake release
- √ Push button start-stop switch
- √ Electric Stop Motions
- √ Enclosed drive, safe, compact
- √ Universal yarn creels

ADVANCED DESIGN BOOSTS ECONOMIES

New design makes this high-speed Fidelity Skein Reeler so easy to run that one operator can handle several machines. Automatic features increase labor productivity 25% to 100%. Space-saving double end (as shown) and single end models available for cotton, nylon, rayon, silk, wool and worsted yarns, tapes, and laboratory uses.

Job-proven in top mills, Fidelity Skein Reelers outperform all others. Get the brochure on this first radical development in reeling machinery in over 40 years, or simplified production charts to analyze your own reeling operation.

Manufacturers of intricate precision machinery since 1911.

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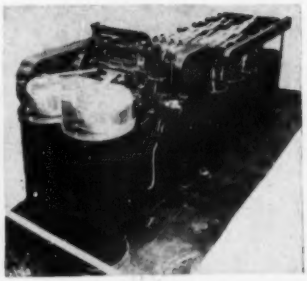

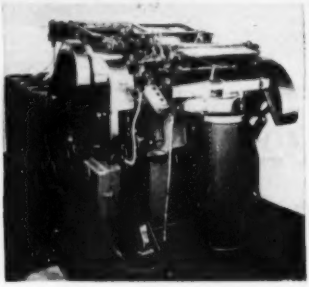

this manufacturer also offers a special gill box providing for 36x15¾-in. cans, special rotating coiler heads on the delivery, stop motions, automatic lubrication, etc. This gill box is a high-production machine, especially suited for heavyweight slivers, and can give a production of up to 145 lb. per hr.

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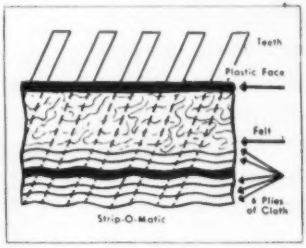


Strip-O-Matic Clothing Now Made for Cotton and Fine Wool

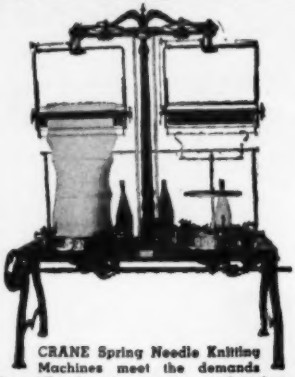
The use of Strip-O-Matic card clothing, a development of Benjamin Booth Co., Allegheny Ave. and Janney St., Philadelphia, Pa., that permits carding virtually without stripping, has now been extended for use with cotton and finer counts of woolen and synthetic yarns. Originally introduced for carpet work and other heavy yarns, this straight-tooth clothing is now offered in 12 numbers, as opposed to eight previously.

Included in the new sizes are fillets with 408 and 456 points per sq. in. The 456-points size (the finest offered) is equivalent to 560 points per sq. in. in conventional clothing. The reason given for the statement that Strip-O-Matic can have fewer points yet do the same work is that the

1870 CRANE 1952

SPRING NEEDLE KNITTING MACHINES

Speed - Quality - Low Cost



CRANE Spring Needle Knitting Machines meet the demands of rapidly changing patterns and styles on all weights of fabrics.

CRANE

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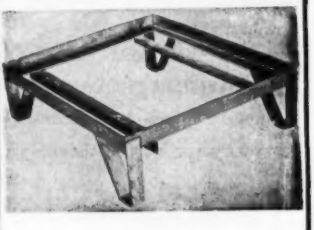
LAKEPORT, N. H.



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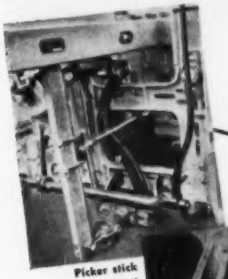
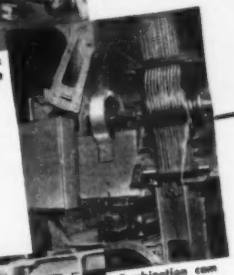
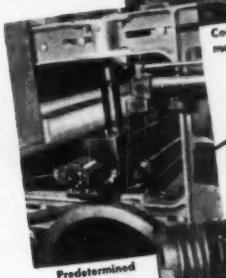
Fletcher sets the Pace *with a* HIGH SPEED SEMI-AUTOMATIC LOOM



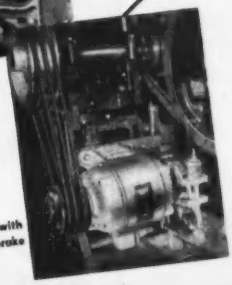
Picker stick lubricant arrangement



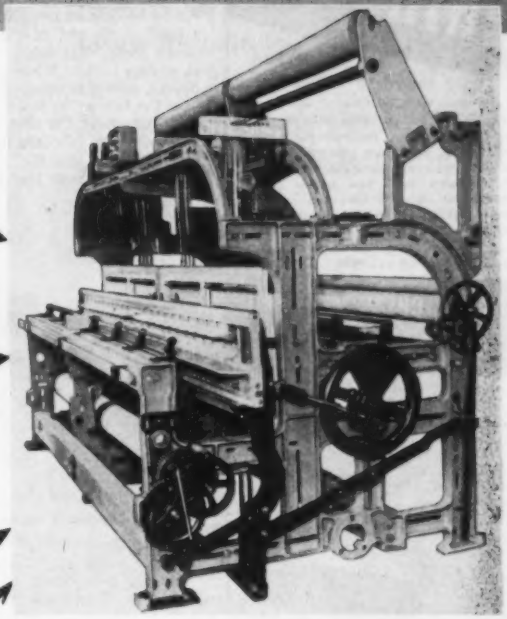
Combination cam motion with cover



Predetermined counter



Motor drive with magnetic brake



This Fletcher High Speed Semi-Automatic Loom has a reputation in the textile industry for its high quality and quantity of production and for the number of looms handled by one operator. It is extremely versatile, properly proportioned and rugged to withstand its high speeds. Close-up views of some of the outstanding features that make it so popular are shown at left.

This loom is used for weaving all types of tape, webbing, ribbon, etc. Remember, there are more Fletcher Narrow Fabric Looms sold than any other. Performance tells why.

Write for Bulletin 73 or let our sales engineers discuss your weaving problems with you.

FLETCHER WORKS

223 GLENWOOD AVE PHILADELPHIA 40, PA. ESTABLISHED 1850

NEWEST
Anti-Static Treatment for Synthetics
Dextrol
LEKTROSTAT®
NYLON TRICOT IMPROVED
The anti-static agent Lektrostat B, when used (2 to 3%) in the last rinse after dyeing, gives nylon tricot an improved hand with better running and cutting characteristics as it possesses the qualities of a substantive softener. Garments made from treated fabric exhibit better shelf life since they are less prone to pick up dirt and lint through static electricity.
Give us your problem . . . write
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TEXTILE CHEMICAL DIVISION
P. O. BOX 1, BLVD. STA. NEW YORK 59

"WHEN YOU THINK OF FEEDERS-

-YOU THINK OF-
HARWOOD"
Geo. S. HARWOOD & Son
19 Lagrange St., Worcester 8, Mass.

open design of the teeth actually gives more points transversely while it eliminates longitudinal points.

Stripping is reported to be reduced by 50 to 500%.

The new clothing has a new foundation of impregnated felt that not only provides greater tensile strength but far greater support for the straight shank teeth used.

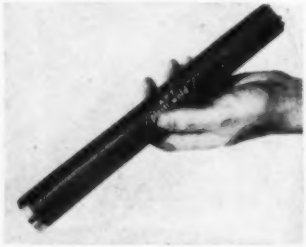
•

Roving Bobbins Stripped by Air Pressure

Roving is stripped from roving bobbins by air pressure in this "Roving Disintegrator" developed and patented by C. C. Sumner, Box 172, West Hillsboro, N. C. Roving bobbins are mounted on skewers in a creel at the end of the portable box shown above. The box is then rolled to an air-hose outlet. When the air valve is opened, roving is automatically unwound from the bobbins by the air pressure.

The staple of the fiber is undamaged, and waste that falls into the box can be placed directly into the picker. Use of sharp knives or razor blades is completely eliminated.

•



Bobbin Designed for Use on SG-1 Spinning Frame

A new bobbin designed for use with the new Saco-Lowell SG-1 Gwaltney spinning frame has been developed by American Paper Tube Co., Hazel St., Woonsocket, R. I., and Greenville, S. C. The new bobbin is 12 in. long and has a taper of $\frac{7}{8}$ in. from the $1\frac{1}{2}$-in. dia. of the bottom to the $1\frac{1}{8}$-in. dia. at the tip.

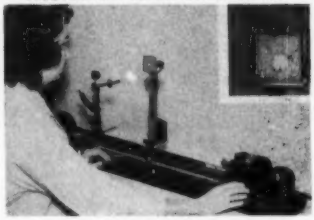
Plasti-weld construction is used in the new bobbin. In this method of construction, a molded-plastic seal of the special design required by the Gwaltney-frame spindle is simultaneously molded and combined with a metal tip and laminated bobbin barrel into a homogeneous unit that insures "permanent precision."

•

Picker Improvements Can Be Applied to All Models

A new picker that includes several improvements that can be applied to old pickers has been developed by Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass. The new machine, made with steel plates instead of cast iron, is much smoother and has less tendency to collect fibers. Grate or leaf bars have been eliminated in the new model because the company found that the cleaning those bars did was not sufficient to justify the care they required.

The three improvements that can be

PRECISION TWIST TESTER
for measurement of turns per inch and take up due to twist of all yarns.
ACCURATE • EASY TO OPERATE

Standard motor driven model with additional monofilament take up device being used.
Write for descriptive literature and prices.
UNITED STATES TESTING COMPANY, Inc.
1415 Park Avenue
Hoboken, N. J.

FOR ALL-YEAR-ROUND SWEATER SALES . . .

LEIGHTON

Knitting Machines

Today it's Flexibility you want for short runs and quick style changes. Get the luxury of quality knitwear whether fashioned from lambs' wool that is soft or the latest synthetic blends. For all-year-round sweater sales, Leighton can be of help to you.

Note these advantages:

1. The Leighton principle eliminates sharp bends in the yarn . . . making it possible to knit soft spun yarns with less end breakage.
2. A wide range of yarn can be knit on the same machine without changing needle cuts. A distinct Leighton advantage.
3. The most versatile knitting machine made . . . because of the big, roomy dial *outside* the knitting point.

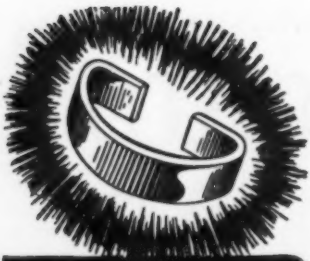
A woman's robe is never complete without at least one TWIN SWEATER SET.

MODERNIZE YOUR OLDER MODELS OF LEIGHTON MACHINES WITH AN EYE TO THE FUTURE.

LEIGHTON MACHINE COMPANY
ESTABLISHED—1873

LEIGHTON

MANCHESTER NEW HAMPSHIRE
INCORPORATED—1894



DARY
Ring Travelers

About
Making Money—

Money-making begins at your break-even point. Keeping costs down lets you reach that point sooner. And, in spinning and twisting, one way to hold costs to minimum is to use the right ring travelers for the job.

Your friendly Dary representative is a specialist. Get his advice on selection of travelers, backed by our half century of experience!

Always specify
DARY Ring Travelers

THE DARY RING TRAVELER CO.
TAUNTON, MASSACHUSETTS
LINDSEY L. PHILLIPS, TREASURER, TAUNTON, MASS.
JOHN E. HUMPHRIES, BOX 843, GREENVILLE, S. C.
JOHN H. O'NEILL, BOX 720, ATLANTA, GA.
JAMES H. CARVER, BOX 22, RUTHERFORDTON, N. C.
CRAWFORD RHYMER, BOX 2261, GREENVILLE, S. C.

applied to an old picker as well are: (1) new universal grid bars, (2) a fringe roll between the evener roll and the beater, and (3) pneumatic rack control of lap weights.

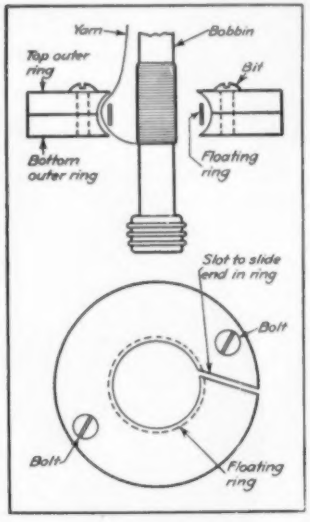
•

Ball-Bearing Spindle Out Under New Name

A ball-bearing spinning and twisting spindle is now offered to textile mills under the name of "Hartford" ball-bearing spindle. It is manufactured by Hartford Machine Screw Co., Inc., Box 1440, Hartford, Conn., and was formerly produced by Hartford for H & B American Machine Co. as the "Century" spindle. There are already 92,000 Century spindles in use, the manufacturer reports, and service is available for these spindles also.

In the near future there will also be a roller-bearing Hartford spindle available for both spinning frames and twisters.

•



Ring Designed To Eliminate Use of Traveler

A ring that needs no traveler has been invented by Ralph B. Blackwood, 2501 Columbus Circle, Charlotte, N. C., and is patented under Patent No. 2,550,761, granted May 1, 1951. Here's how the ring works.

The ring is made in three parts. It has a top and bottom outer piece; and when they are bolted together, the inner circle is concave in shape. Within this concave circle is a floating ring. This floating ring acts as a tension device for the yarn and inserts the twist. One point on the outer ring is slotted so the end may be pulled into place between it and the floating ring.

This ring has been successfully run on 64 spindles of a twister from 20/2 to 80/2 cotton and synthetic yarns. It has not been tried on spinning yet, but it is believed that it will work successfully there.

Wet Processing

(Continued from page 125)

bands, ¾ to 1¼ in. wide, in long lengths, garment lengths, or with ends joined to lightweight knit undergarments.

Style 52900 BG: a streamlined "Safety Stitch" machine for simultaneous seaming and overedging of dresses, coat linings, pillowcases, and similar articles.

Improvements on these machines include automatic lubrication.

•

Carpet-Inspecting Tables Eliminate Handling

Power-driven inspection and mending tables for carpet have recently been developed by Edward J. McBride Co., Inc., Adams Ave. and Leiper St., Philadelphia, Pa. These tables place the work directly in front of the operator and eliminate the problem of individual handling of a carpet during inspection with resultant saving in fatigue for the operator. The direct time saving made possible by this unit is 50%, according to reports from the first installations that were made.

•

Inspecting and Mending Done in One Operation

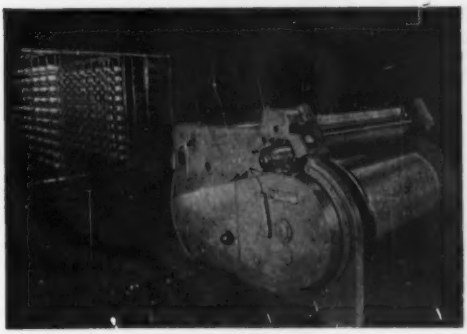
New inspecting and mending form developed by Shoaf Hosiery Form Co., Ann & Academy Sts., Concord, N. C., permits inspection and repair in one operation by one operator. Goods brought from the seamer are pulled on the form while in the "open" position. If repairs are necessary, the form is retracted. The form is 42 in. long; has a smooth, black finish; and a hole in the toe to facilitate turning.

•

New Type of Wool-Scouring Process Developed

A new type of wool-scouring process has been developed on a laboratory scale by Western Regional Research Laboratory, U. S. Dept. of Agriculture, Albany, Calif. The new process, using suint and alcohol.

High Speed SIPP-EASTWOOD WARPER Now Available with choice of drives.



This warper may be had with *fully electronic drive* (for extremely accurate control of yarn speed)—or with *Rider Roll Rheostat type drive.*

The High-Speed Sipp-Eastwood Warper with its choice of drives, sturdy, extra-heavy construction, smooth application of power, spindle-driven beam, and dependable V-belt drive makes for more efficient operation. Its speed is only governed by the yarn.

OUTSTANDING FEATURES:

1. *Spindle driven beam builds up to 36" in diameter, 54¼" wide, or wider.*
2. *Electrically operated hydraulic brakes, automatically adjusted to beam load.*
3. *Variable finger-tip speed control, effective to as close as 1%.*
4. *Hydraulic beam doffing.*
5. *AC current only required.*

Ask for all the facts about this efficient warper.

SIPP-EASTWOOD CORPORATION
47 Keen Street **Paterson, New Jersey**

DOMESTIC AGENTS:

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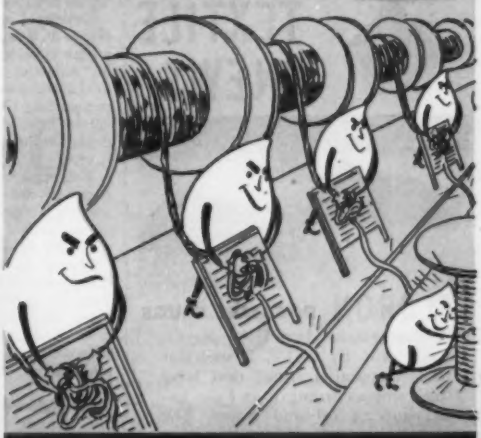
J. S. FALLOW & CO.
New Bedford,
Mass.

J. S. FALLOW & CO.
4846 Sherbrooke St. West
Montreal, Canada

HOW TO GET FIBERS CLEAN



...Versene*

VERSENE* GETS THEM CLEAN

Completely clean textile fibers present far fewer processing problems. Softer "hands" and whiter "bottoms" are the natural result, along with level dyeing and the elimination of iron, lead and other metallic stains. Versene softens hardest water thoroughly and *permanently — without* the formation of precipitates. Versene prevents the formation and deposition of insoluble soaps on textile fibers. Versene complexes, sequesters or chelates the metallic ion contaminants that have complicated wet processing problems for so many years.

CHELATION — THE NEW CHEMISTRY

Chelation and the Versenes, through the exacting chemical control of cations in solution, are saving millions by preventing spoilage, improving quality and cutting process time. Woolens, Cottons and Synthetics all benefit.

FIND OUT ABOUT THE VERSENES

The Versenes are exceptionally stable at elevated temperatures throughout the pH range. Unduplicated and guaranteed for uniformity of quality and complexing power, they are made only by the Bersworth Chemical Company under processes originated, developed and patented by F. C. Bersworth. Available in wet or dry form they deserve your serious consideration. We will be glad to show you how to use them. Write Dept. D for Technical Bulletin #2. Ask for samples. Chemical Counsel on request.

VERSENE WATER TEST KIT. Tells Total Hardness in 2 minutes. Accurate to 1 grain per gallon. Versenate method. Complete with instructions $5.00 Postpaid.

KEY TO CHELATION

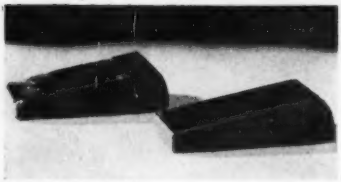
"Chemistry's most precise chemicals"

BERSWORTH CHEMICAL CO.
FRAMINGHAM, MASSACHUSETTS
*Trade Mark Registered

WAREHOUSE STOCKS
Providence Agent: George Mann & Co., Inc., 251 Fox Point Boulevard, Providence, R.I.
W. Coast Agent: Griffin Chemical Co., San Francisco, Los Angeles
Midwest Agent: Kraft Chemical Co., Inc., 917 W. 18th Street, Chicago
Wasatch Chemical Co., Salt Lake City, Utah
Southwest Agents: Baroda & Page, Inc., Dallas, Houston, Kansas City, etc.
Chas S. Tanner Co., 1815 Liberty Life Bldg., Charlotte, North Carolina

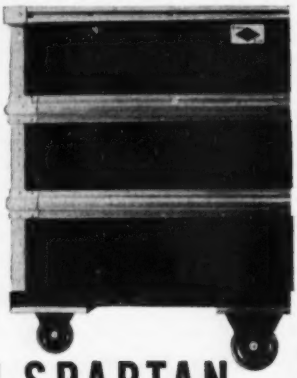
...From SPARTANBURG, S.C.

CDF TEXTILE NEWS



CELORON PARALLEL PLUGS

A canvas-based laminated plastic, made only by C-D-F, is used for molded parallel plugs that have high impact strength and are impervious to oil and water. The upper left plug was used for two years by a leading mill! Celoron does not require lubrication, never turns soft or spongy, lasts indefinitely. It does not fracture, chip, or delaminate. Write for sample.



THE SPARTAN

A side view of the industry's newest, best-built truck . . . the SPARTAN. Smooth Diamond Vulcanized Fibre sides. Curved center bands, rounded corners, well-riveted. Special no-snag top rim. Steel casters with heavy thread guard. *Write now for new folder showing complete C-D-F receptacles line!*

ALL PRODUCTS OF

Continental-Diamond Fibre Company

NEWARK 55, DELAWARE

. . . with Textile Headquarters at 834 Haynes Street, Spartanburg, S.C. Call Spartanburg 3-6397 for CELORON gear blanks . . . materials handling equipment . . . loom parts . . . service from your C-D-F sales engineer.

is said to reduce felting, increase by-products recoverable, and relieve the stream-pollution problem.

Developed under the direction of Dr. Harold P. Lundgren, the basic idea of the process is utilization of the inherent scouring action of suint, a mixture of water-soluble components of grease wool. These components, like soaps, contain potassium salts of organic acids. The basic cleaning process is the same whether soap or suint is used.

The experimenters found that alcohol improved and made more reliable the scouring action of the suint. The effect of the alcohol can be accentuated by a controlled amount of salt.

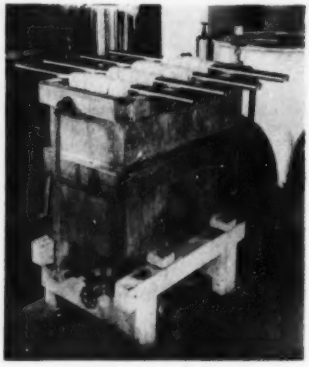
Normal butyl alcohol was chosen for the process because its boiling point is above the melting point of the grease and below the temperature where felting becomes significant. Relative availability and costs were also considered. A 3% solution used at 60° C. is the best concentration.

Further addition of alcohol, to about 7%, saturates the water and causes the emulsion to break and the grease and dirt to separate. The alcohol concentration can then be readjusted and the solution used again.

Advantages claimed for the new process are:

1. By being carried out under neutral conditions, the process reduces felting and fiber damage.
2. Recoveries of grease and suint are made separately and easily.
3. The solvent is relatively nontoxic and nonvolatile; it is recycled but does not need to be completely redistilled for each cycle.
4. There is no pollution-control or waste-disposal problem.
5. Relatively little floor space is required; present scouring equipment may be adapted.
6. The alcohol inhibits putrefaction.
7. The process is estimated to be cheaper than solvent scouring.

•



Stainless-Steel Tubes Useful in Dyeing, Drying

Stainless-steel dye sticks and drying racks developed by Carpenter Steel Co., Alloy Tube Div., Union, N. J., are being used successfully in handling delicate fibers in dyeing at Philadelphia Textile Institute, Germantown, Pa.

The tubes and racks are completely resistant to the corrosive effects of acid, chrome, vat, direct, and acetate dyestuffs.

•

Small Bleaching Range Fits 15x20-Ft. Space

A new rope-type continuous-bleaching range (patent pending) known as the Cook Bleachetette has been developed by Cook-P & N Machine Co., 365 Dorchester Ave., Boston 27, Mass.

This equipment combines all saturating and washing operations into a single machine. The design is said to result in savings in labor, floor space, and equipment cost. Floor-space requirement is only 15x20 ft., which includes both caustic and peroxide J-boxes.

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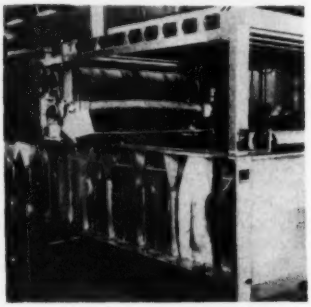


Open-Width Washer Has Overhead Rolls, New Seals

The open-width Tensitrol washer made by Rodney Hunt Machine Co., Orange, Mass., is now available with an overhead frame on which top idler rolls are mounted. This design is offered as a choice along with the model having idler rolls mounted directly on the tub ledge. For additional flexibility, counterflow water partitions are now so designed as to be removable.

Important advantages in operating efficiency and maintenance are being obtained with two new mechanical devices, the company claims.

A new-type pressure cell replaces the air cylinder for applying pressure on light and medium squeezers (indicated by arrow). When the machine is turned off, the lower roll, now connected with the new pressure cell, drops away from the top roll automatically, thus preventing damage to rolls from their contact while not in use.

•

New Cloth Folder Has Air-Operated Table

A new type of cloth folder with air-operated table, pivoted air cylinder, steel tubing for connections between the cylinder and the table irons, and rectangu-

ADD A STEP !

When the soldiers of Alexander the Great complained to him that their swords were shorter than those of the enemy, he replied, "*Add a step to yours.*"

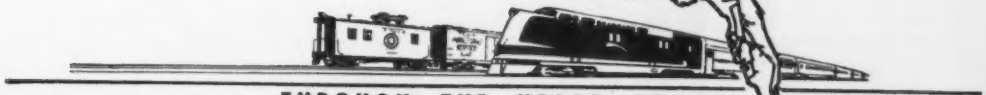
If the pinch of competition is troubling you, take a tip from Alexander the Great and "add a step" by coming South.

Our experienced plant location service is extended you without obligation or cost. All negotiations are confidential.

Address:
Warren T. White,
Assistant Vice President,
Seaboard Air Line Railroad,
Norfolk 10, Virginia.

GROW with the GROWING SOUTHEAST!

SEABOARD AIR LINE RAILROAD



THROUGH THE HEART OF THE SOUTH

Stehedco and Southern

Although famous for Stehedco flat steel heddles—twin wire and brazed eye heddles can also be supplied. A few of the most popular styles are illustrated above.

STEHEDCO and SOUTHERN
"Weave the World's Needs"

lar steel tubing for the table irons has been brought out by Hall & Jansson Co., 177 Highland St., Worcester, Mass. It is called the "Ai-Type" cloth folder.

The pivoted air cylinder is said to almost entirely reduce the side thrust of the piston against the cylinder walls, so that shutdowns for replacing packing, as well as the cost of repacking, are materially reduced.

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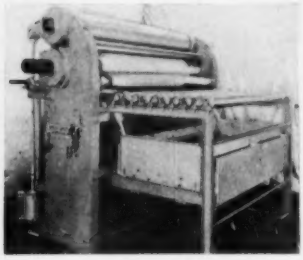

Rolls of New Padder Don't Need Crowning

A new quetsch, or padder, that has a capacity of up to 15-tons pressure has been announced by Birch Brothers, Inc., 32 Kent St., Somerville 43, Mass. Pressure in the new machine is applied through air cylinders and a special lever system.

The bottom or driven roll of the machine is rubber covered, and the top roll is stainless steel. With this arrangement, printed goods are said not to mark off onto the top roll. For ordinary applications, however, the bottom roll is stainless steel, and the top roll is rubber covered.

Delivery end of the new padder is fitted with a built-in compensator that regulates the machine speed when it is set in a range with other equipment.

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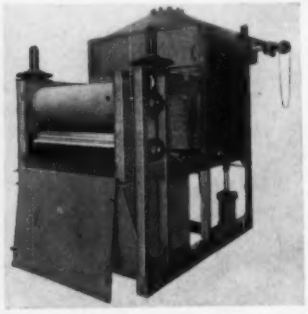
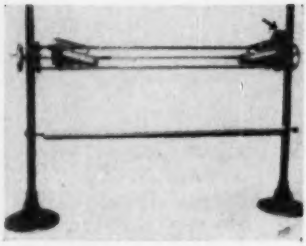


Vertical Singer Runs at 350 Yd. per Min.

A new vertical singeing machine that incorporates an automatic knock-off that functions quickly if the cloth breaks or burns has been developed by Cook-P & N Machine Co., 364 Dorchester Ave., Boston, Mass. When the machine is stopped, the cloth is automatically taken off the burners. The wetout section is equipped with pneumatic pressure and stainless-steel and rubber covered rolls.



Cloth Guider Stands With Motor-Driven Carriages

Motor-operated stands in which the motor (arrow) speeds the action of the carriages carrying the guider heads have been announced by Guider, Roll & Service Co., Box 3747, Peninsula Sta., Daytona Beach, Fla.

The motor-operated stand is equipped with the latest-type Hetherington mechanical guider. Other types of guiders can also be used. Hand wheels make it possible to operate the stand manually from either side if so desired.

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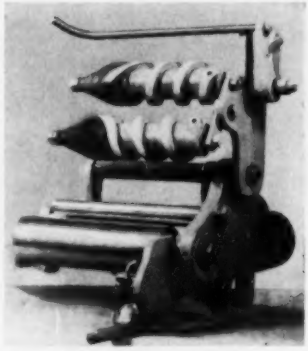

9-In. Spiral Rolls Turn Back Selvages

The "Taker-Outer" is the name of a new selvage-turning eliminator now offered by Guider, Roll & Service Co., Box 3747, Peninsula Sta., Daytona Beach, Fla. Spiral rolls 9 in. long, driven by the cloth in process, accomplish the taking out or turning back of turned selvages. One spiral roll is in front and the other in back of the cloth.

The turners can be attached to existing cloth guiders or can be supplied with brackets and used any place where cloth travels in open form. The unit also has an attachment that tightens the selvage of the fabric before the turned selvages are straightened.

•

Continuous Feeding of Solutions Simplified by Proportioning Device

A line of proportioning weir tanks for solutions or suspensions has been developed by Omega Machine Co., 345 Harris Ave., Providence 1, R. I. These devices consist of a specially constructed tank incorporating a stilling chamber, an

Stehedco and Southern

It's Only Natural...

*This pigeon selected Stehedco Heddles for its most important job: Weaving a secure nest for its young ones.
(Actual Photograph)

...to select Stehedco Heddles when your weaving job is important to you

Steel Heddle Mfg. Co., the largest manufacturers of Loom Harness Equipment possesses every known facility and resource and is prepared to furnish every type of heddle required for your weaving needs. There is a specific Stehedco Heddle for every kind of fibre material or synthetic: Silk, Rayon, Nylon, Orlon, Dacron, Cotton, Worsted, Wool, Straw, Cellophane, Paper, Wire, Fibreglass and Synthetics.

All are made with specially designed precision built equipment, operated by experienced craftsmen. These are the superior Stehedco features that assure you top quality weaving.

Consult our staff of Field Engineers maintained for the express purpose of assisting you with your mill problems.

I-55-4

STEEL HEDDLE MFG. CO.

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Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

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A Division of STEEL HEDDLE MFG. CO.

310 St. Hubert Street Granby, Quebec, Canada

STEHEDCO and SOUTHERN "Weave the World's Needs"

quick! get

ANTIFOAM A

Foam wastes time; takes space; invites fire.

Kill foam with Dow Corning Antifoam A, the most efficient and versatile defoamer on the market. This silicone defoamer is also most economical to use because only trace quantities are required to quell many of even the most violent and persistent foamers.

Tar and asphalt, for example, are effectively defoamed during processing as well as during application by concentrations of Antifoam A as low as 4 parts in 10 million.

Ten ounces of Antifoam A added to a 40,000 gallon batch of crystallizing sodium bromide prevented foaming in that batch and in the next 21 batches as well. Here the effective concentration works out to about 1 part in 10 million.

If cost, contamination, or full use of process equipment are prime considerations in your operations, try Antifoam A. Practically odorless, tasteless and non-toxic, Antifoam A is safe, fast and by far the most economical and versatile defoaming agent on the market.

See for Yourself

Send for trial sample of Antifoam A

DOW CORNING SILICONES

Dow Corning Corporation
Dept. CJ-23
Midland, Michigan

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Company_____

Street_____

City_____ Zone ___ State _____

DOW CORNING CORPORATION
Midland, Michigan

accurately machined rectangular weir, two outlet chambers, and a flow splitter, so arranged that the total flow of solution or suspension to the two outlets can be readily divided into any proportion.

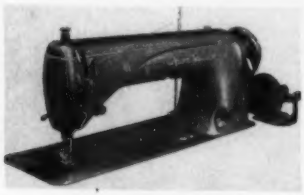
•

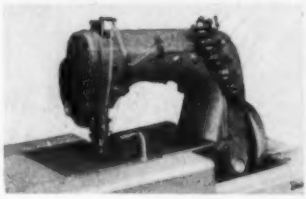
Electric Brakes Synchronize Brushes on Brushing Machines

A new series of electric brakes for brushing machines said to increase output and improve quality has been developed by Warner Electric Brake & Clutch Co., South Beloit, Ill. The new controls are comprised of eight electric brakes, one mounted on each brush roller. The eight brushes are synchronized and are controlled by a single pushbutton.

With the new brakes, the brushes can be stopped instantaneously as one unit. The company says excessive rubbing of the cloth through machine stoppages has been eliminated.

•





Union Special Announces Two Improved Machines

Safety stitch, seam type SSa-2, is produced by this new three-needle seaming and overedging machine, Style 52900 BA, developed by Union Special Machine Co., N. Franklin St., Chicago, Ill., to supersede Style 52900 A. Features are centralized automatic lubrication, an improved looper throwout mechanism, and seize-resistant main bearings.

Improvements in Class-61400 lockstitch machines include cool-running needle bearings to reduce rotary hook and clothplate temperatures, and a stitch-length indicator of the comparison type. Color and finish of the machine have also been improved. Two models for light-to-medium and medium-to-heavy work are available.

•

Vacuum Impregnation Applied to Textiles

The process of introducing an impregnating agent into a chamber where a high vacuum has been drawn—vacuum impregnation—has been applied to several textile processes by the F. J. Stokes Machine Co., 5500 Tabor Rd., Philadelphia 20, Pa.

In the production of machine-made lace, basting threads are now of cellulose acetate, which is dissolved by impregnation of the lace with acetone in a vacuum chamber. Manual removal of the basting threads was formerly necessary.

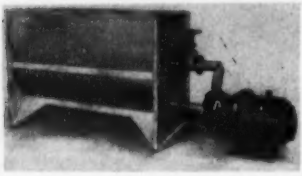
The process is also used in carpet manufacturing to impregnate conical spools (cops) of wool yarn under vacuum with liquid starch.

•

Short-Type Nylon-Plasticizing Machine Available from Britain

A shorter 31-ft.-long continuous nylon-hosiery plasticizing and finishing machine that eliminates preboarding is now being offered to American mills by Nylo-Plas Ltd., 87 Regent St., London W. 1, England. The unit is called the "Universal" machine, and can also be used in the finishing of blended hosiery, half-hose, and children's socks.

•



New Dyeing Machine For Fine Knit Goods

Tricot fabrics as well as marquisettes and laces can be pressure-bleached, boiled off, and dyed in this unit that can handle 4,000 yd. or more in one operation. The machine circulates the solution through the material at a constant rate up to 1,000 gal. per min. Temperature and pressure are under control at all times. The unit is manufactured by Burlington Engineering Co., Inc., Graham, N. C.

•

A New Tufted-Type Metal-Core Brush

A metal-core brush that has its tufted bristles bound onto the core in slotted bands of stainless steel or copper has been put on the market by Industrial Brush Co., Inc., Little Falls, N. J. This type of tufted construction has proved particularly efficient for blanket washing and for raising the nap on woolens and worsteds.

The closely wound metal bands and solvent-resisting cement in which the tufts are set make the brush impervious to moisture, and at the same time allow water to flow freely between the tufts to get out any matter that penetrates the dense brush surface.

The bristle is renewable when worn down.

how ABBOTT WINDERS are tension controlled at TEXTRON

Textron has about a thousand *Kidde* Double Disc Compensators on their Abbott Winders. Why? Because *Kidde* Double Disc Compensators: 1) Assure uniform tension throughout the quill 2) Control tension at bunch 3) Prevent sloughing off due to soft quills 4) Relieve yarn tension at *start* of bunch, thereby promoting longer quill and washer life 5) Prevent deformed and crushed quills when winding nylon. If you use Abbott Winders on any kind of synthetic yarn (rayon, nylon, Orlon, Dacron (Polyester Fiber) Dynel, etc.) *Kidde* Double Disc Compensators will improve the handling. Write today for full information.

Kidde Double Disc Compensator

10 to 140 grams
or 100 to 300 grams

Kidde

Walter Kidde & Company, Inc.
1191 Main Street, Belleville 9, N. J.

Complete Line of Instruments to measure and control

LIQUID LEVEL

Foxboro offers you *unbiased* recommendations on instruments to indicate, record, or control liquid level. Whether your problem involves turbulent, viscous, or corrosive liquids, in open or pressured vessels . . . whether bubble tube, differential pressure, float, or diaphragm box measuring systems are required — Foxboro offers the most efficient instruments for the job. Why not discuss your problem with a Foxboro engineer? Write **The Foxboro Company, 8411 Norfolk St., Foxboro, Mass., U.S.A.**

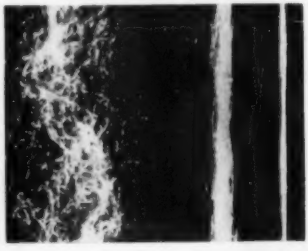
FOXBORO Instruments

News OF THE MONTH

"Stretch" Nylon-Yarn Products. Extensible nylon yarn, made by a patented heat-setting method called the "Helanca" process, has been put on the American market in the form of various consumer fabrics by Duplan Corp., New York. The processed yarn, developed and licensed by Swiss textile engineers, Heberlein & Co., retains its original nylon characteristics of quick drying and abrasion resistance.

One size of hosiery, sweater, glove, or underwear fits many different sized persons as the yarns expand or contract as needed, without noticeable pressure on the body. The process uses normal nylon yarn, but it takes advantage of the natural action of nylon when it is twisted tightly and then heat set to retain the twisted form. Two ends, which may run as fine as 20-den. single yarns, are then twisted together. The result is said to be a soft-textured yarn with great elasticity and recovery power.

The new type of fabrics and consumer products are expected to cut retail inventory requirements very happily for all concerned. Large-scale production is already reported under way in men's hosiery, women's gloves, and other women's wear.



40-DIA. MAGNIFICATION of "Helanca"-treated nylon filament yarn shows the relaxed position of the yarn at the left, the treated yarn under tension in the center, and an end of regular untreated filament nylon at the right.

Minimum-Wage Hearings Open. Basic differences in the philosophy of wage-rate setting have been revealed this fall by Northern and Southern mill men and associations at the hearings in Washington on a proposal to increase the minimum wage paid to workers in cotton and man-made-fiber weaving mills when the fabric is for government purchase.

The American Cotton Manufacturers Institute of Charlotte, N. C., representing Southern manufacturers, called on Secretary of Labor Tobin to observe the spirit and letter of the Walsh-Healey Public Contracts Act, under which minimum rates for labor working on government contracts were last set in 1948. ACMI held that it was not the purpose of the hearing to decide what rates ought to be paid but merely to determine what the prevailing wages are now that are being paid in the industry for government work.

The National Association of Cotton Manufacturers, the Northern group, holds that separate minimums for each community would hurt New England. Minimum wages paid in New England mills under union-contract provisions range upward from $1.09½ an hour, whereas the 1948 minimum was set at 87¢. NACM claims that in some Southern mills wages are as low as 75¢ an hour.

Manufacturers are allowed to question the Secretary of Labor's interpretation of the Walsh-Healey Act by virtue of the Fulbright Amendment to the act passed last spring by Congress as a rider to the Defense Production Act.

Stevens Calls for Free Trading. An end to exchange restrictions, import quotas, subsidies, and similar devices that have blocked and will continue to block world textile trade was asked for at the recent International Cotton Textile Conference at Buxton, England, by Robert T. Stevens, chairman of J. P. Stevens & Co., Inc., New York. He warned against introverted nationalisms as being deadly both from the standpoint of world trade and human well-being. The goal outlined by Mr. Stevens would be an ever-widening distribution of goods and services to raise living standards everywhere.

The conference was reminded that piecemeal tariff concessions granted by many nations were in large part meaningless, since trade in soft-currency countries is subject to other types of barriers—such as import quotas, exchange restrictions, sales taxes at port of entry, embargoes, and above all, bilateral trade treaties.

The program offered by the Amer-

A Message to Capable Men Who Are Still Earning Under $10,000

Here Are Some Surprising Facts about the Great Demand for High-Salaried Executives Today—and What You Can Do to "Break Into" the $12,000 to $20,000 Bracket

AMAZING as it may seem, a serious shortage of high-salaried executives exists in every branch of business and industry today. You don't have to look further than the want-ad columns to know that the really big jobs go begging. Openings exist right now for high-calibre executives who can command a salary of $12,000 . . . $15,000 . . . $20,000—and more.

WHY the Big Jobs Go Begging

Employers are on the constant look-out for well-rounded men who show a potential for handling the big jobs. They're eager to invest in men who know the methods used by others to increase profits—men who can make money for them!

Such men are becoming hard to find. WHY? The acute shortage has been variously explained by the war years, the rapid expansion of industry, the tendency to specialize. The important thing is not why the shortage exists but WHAT you can do about it, and HOW you can qualify for the great opportunities that exist in business today.

As one of the foremost business consultants in the U. S. and the head of a large accounting firm, J. K. Lasser works with some of the nation's leading corporations. He has seen at first hand the scarcity of qualified men for high-salaried jobs. Why, Mr. Lasser asked, are there so many openings at the top—and so many men stymied in the $5,000 to $10,000 a year bracket?

The One Ingredient That Qualifies You for a Top-Salary Job

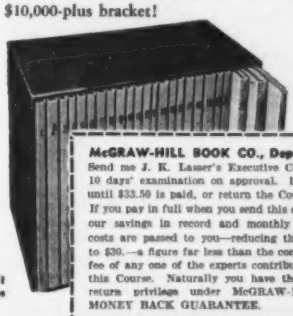
To find the answer, Mr. Lasser went directly to the heads of companies in many fields. Consistently he heard the same answer: the one thing men in the middle brackets need to make the high-salary grade is—a general, well-rounded knowledge of business procedure. "Give me a man with a basic knowledge of accounting, marketing, employee relations and taxation," one employer remarked, "and I'll lead him by the hand to a $20,000 office!"

J. K. LASSER

Featured in FORTUNE MAGAZINE as one of the nation's foremost authorities on business and taxes. Mr. Lasser is head of one of the largest accounting firms in the United States and Adjunct Professor and Chairman of the Institute on Federal Taxation at New York University.

This simple answer gave Mr. Lasser an idea for a brand-new plan that would literally lead men out of the $5,000-$10,000 plateau and into the top jobs. He asked the foremost men in every field to reveal working methods that have brought success in marketing, public relations, accounting, budgeting, insurance, government regulations, taxation, and the "know-how" in every business procedure for top-level management.

Mr. Lasser consulted only top men, such as business analyst Roy A. Foulke, Vice President, Dun and Bradstreet; marketing expert Marion Harper, Sr.; twenty executives nationally known for their successful methods. Then he simplified and "boiled down" this wealth of knowledge and experience into J. K. Lasser's Executive Course in Profitable Business Management—providing the all-important ingredient needed to boost men into the $10,000-plus bracket!



What You Can Learn from These Successful Executives

Lasser's Executive Course makes it possible for you to view each departmental operation from the top down, with an expert as your guide. You learn to talk, think, and plan with the kind of well-rounded authority expected of top-management.

You learn streamlined methods of distribution; how to run a cost system; how to design systems for internal control of business. Even hardboiled employers will be impressed by your knowledge of controlling operations through budgeting; how to avoid business frauds; and how to cut paper work in half. Your knowledge of new marketing methods, successful tax planning, and effective management under today's government controls can save and make money for any employer.

Are You READY for Advancement?

If you're not *sure* of your own advancement, send for Lasser's Course right away. By looking at the whole Course—noting the ground covered, the fact-filled treatment, Lasser's clear, informative style—you can quickly see how this Course can prepare *you* for advancement—back you up with the best ideas of 21 leading business experts.

Take the simple step of dropping the coupon in the mail today. No money down—no salesman will call—you merely agree to send your first installment or return the books, in 10 days. Send the coupon now—it may turn out to be one of the most advantageous steps you ever took.

See all 24 vols.—Mail this FREE EXAMINATION COUPON

McGRAW-HILL BOOK CO., Dept. TW-11, 327 W. 41 ST., N.Y.C. 36

Send me J. K. Lasser's Executive Course in Profitable Business Management, 24 volumes, for 10 days' examination on approval. In 10 days I will send $3.50, and $5.00 monthly thereafter until $33.50 is paid, or return the Course postpaid.

If you pay in full when you send this coupon, our savings in record and monthly billing costs are passed to you—reducing the price to $30.—a figure far less than the consulting fee of any one of the experts contributing to this Course. Naturally you have the same return privilege under McGRAW-HILL'S MONEY BACK GUARANTEE.

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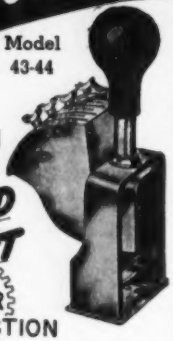
NOTE TO EMPLOYERS: Mr. Lasser's new course is designed to help solve your problems in readying men for top-level openings in your organization. Send us the names and addresses of men working for you who merely need more background in sound business procedures to qualify them for bigger jobs. We will gladly mail a booklet to them, fully describing the course, without charge or obligation to you.

Cut costs—stop errors!

Model 43-44

USE AMERICAN SPEED SET GEAR CONSTRUCTION



NUMBERING MACHINES

FOR MARKING TEXTILE MILL TAGS, TICKETS, LABELS, ETC.

Modern textile merchandising demands CLEAR, EASILY READ piece, lot and case numbers, size and yardage lengths, etc. Supply this demand and use the American Speed Set Gear Construction Numbering Machines. Such numbering with Speed Set machines can be done quickly and easily. Numbers change instantly with touch of fingers and ANY COMBINATION OF NUMBERS can be quickly obtained. All steel wheels, deeply engraved figures, self inking.

Case 1764
Style 1235-16
No. 12345
Yards 56⅞ 56⅝

MODEL 42

Eliminate errors and see that your tags, tickets, labels, etc., are attractively and legibly numbered the SPEED SET way.

• WRITE TODAY FOR FOLDER describing these new machines used in Cotton, Woolen, Hosiery, Knit Goods, and Dyeing and Finishing plants.

AMERICAN NUMBERING MACHINE CO.
Atlantic and Shepherd Aves.
BROOKLYN 8, NEW YORK

NEWS of the Month

ican delegation to the conference called for the permitting of more capital investment; the minimizing of investment risks so that more mill facilities, goods, and services can be built up; greater productivity per employee; lower costs of manufacture and final product through mass-production methods; and vigorous research and promotion.

Rapid Cotton-Maturity Test. An improved and rapid method of measuring the maturity and fineness of cotton fiber has been developed by the U. S. Dept of Agriculture, Washington, D. C. Micronaire readings for cotton fineness are taken on both untreated cotton and on cotton treated with sodium hydroxide, and a new scale is used, called the "Causticaire maturity scale," so named because caustic is used in the process and because the rate of air flow through the fiber indicates its fineness and maturity. The readings from the two measurements (untreated vs. caustic-treated fiber) are used in an equation that yields an "index of maturity" of the fiber.

The new method promises to eliminate the bottleneck in cotton-fiber testing caused by the relatively long time required for the present maturity test.

Wool-Felt Standards Established. A commercial standard for wool felt has been established in the United States

Textile Calendar

AATCC, Western New Eng. Sect., Rapp's Restaurant, Shelton, Conn., Nov. 3, 1952.

Canadian Woollen and Knit Goods Mfrs. Assn., annual meeting, Chateau Frontenac, Quebec City, Que., Nov. 4 to 6, 1952.

AATT, monthly meeting, Builders Club, New York, Nov. 5, 1952.

AATCC, council meeting, Boston, Mass., Nov. 6, 1952.

AATCC, general research committee meeting, Boston, Mass., Nov. 6, 1952.

AIEE, Textile Subcommittee, conference, N. C. State College, Raleigh, N. C., Nov. 6 and 7, 1952.

AATCC, national convention and dyeing and finishing exposition, Hotel Statler, Boston, Mass., Nov. 6 to 8, 1952.

AATCC, Mid-West Sect., Hotel Bismarck, Chicago, Ill., Nov. 7, 1952.

STA, Piedmont Div., Belmont, N. C., Nov. 8, 1952.

AATCC, Western New Eng. Sect., Rapp's Restaurant, Shelton, Conn., Nov. 14, 1952.

Natl. Assn. of Woolen and Worsted Overseers, annual convention, Manager Hotel, Boston, Mass., Nov. 14 and 15, 1952.

Carded Yarn Assn. and **Southern Combed Yarn Spinners Assn.,** annual-convention cruise to Bermuda, Nov. 14 to 22, 1952.

STA, South Carolina Div., Columbia, S. C., Nov. 16, 1952.

TBI, annual meeting and exhibit Hotel Commodore, New York, Nov. 17 and 18, 1952.

American Standards Assn., annual meeting, Waldorf-Astoria Hotel, New York, Nov. 19, 1952.

AATCC, New York Sect., Kohler's Swiss Chalet, Rochelle Park, N. J., Nov. 21, 1952.

STA, Northern N. C.-Va. Div., Winston-Salem, N. C., Nov. 29, 1952.

20th National Power Show, Grand Central Palace, New York, Dec 1 to 6, 1952.

AATT, monthly meeting, Builders Club, New York, Dec. 3, 1952.

AATCC, Phila. Sect., Kugler's Restaurant, Philadelphia, Pa., Dec. 5, 1952.

AATCC, R. I. Sect., annual meeting, Sheraton-Biltmore Hotel, Providence, R. I., Dec. 5, 1952.

ASME, Textile Engineering Div., full-day program, Hotel Statler, New York, Dec. 5, 1952.

AATCC, Northern New Eng. Sect., annual meeting, LTI, Lowell, Mass., Dec. 6, 1952.

AATCC, Western New Eng. Sect., Rapp's Resturant, Shelton, Conn., Dec. 12, 1952.

1953

AATCC, Phila. Sect., Kugler's Restaurant, Philadelphia, Pa., Jan. 16, 1953.

Plant Maintenance Show, Public Auditorium, Cleveland, Ohio, Jan. 19 to 22, 1953.

Air Conditioning Show, International Heating and Ventilating Exposition; International Amphitheatre, Chicago, Ill.; Jan. 26 to 30, 1953.

AATCC, New York Sect., Hotel Statler, New York, Jan. 30, 1953.

AATCC, Mid-West Sect., Hotel Bismarck, Chicago, Ill., Feb. 14, 1953.

National Cotton Council, cotton research clinic, General Oglethorpe Hotel, Savannah, Ga., Feb. 18 to 20, 1953.

AATCC, New York Sect., Hotel Statler, New York, Feb. 27, 1953.

ASTM, spring meeting, Detroit, Mich., March 2 to 6, 1953.

ACMI, annual convention, Palm Beach Biltmore Hotel, Palm Beach, Fla., March 26 to 28, 1953.

AATCC, New York Sect., Kohler's Swiss Chalet, Rochelle Park, N. J., April 17, 1953.

AATCC, Mid-West Sect., Netherland-Plaza Hotel, Cincinnati, Ohio, April 18, 1953.

22nd AMA National Packaging Exposition, Navy Pier, Chicago, Ill., April 20 to 24, 1953.

Natl. Assn., of Hosiery Mfrs., annual convention and conference, Claridge Hotel, Atlantic City, N. J., April 27 and 28, 1953.

Knitting Arts Exhibition, Atlantic City Auditorium, Atlantic City, N. J., April 27 to May 1, 1953.

Materials Handling Exposition, Convention Hall, Philadelphia, Pa., May 18 to 22, 1953.

AATCC, New York Sect., Kohler's Swiss Chalet, Rochelle Park, N. J., May 22, 1953.

Textile Institute, annual conference, Llandudno, North Wales, May 25 to 30, 1953.

Canadian International Trade Fair, Exhibition Park, Toronto, Ont., Canada, June 1 to 12, 1953.

ASTM, annual meeting, Atlantic City, N. J., June 29 to July 3, 1953.

International Exposition of Fabrics, Fibers, Finishes, and Yarns, Waldorf-Astoria Hotel, New York, July 27 to 31, 1953.

AATCC, national convention, Stevens Hotel, Chicago, Ill., Sept. 17 to 19, 1953.

1954

Knitting and Allied Crafts Exposition, Grand Central Palace, New York, April, 1954.

American Textile Machinery Exhibition, sponsored by American Textile Machinery Association, Atlantic City Auditorium, Atlantic City, N. J., April 26 to May 1, 1954.

Rayon Reports

Where does RAYON fit among the Miracle Fibers?

Interest aroused by heavy promotion of the newer "miracle" fibers has tended to obscure the fact that many of the desirable qualities of suitings and other textiles made with those fibers are actually imparted by rayon.

Manufacturers themselves are the first to comfirm this with telling comments. "Oversold overnight." "Tremendous success on this number." "Particularly good for pants—especially tropical weight washables." These are typical reports regarding representative selections from their best blends.

Quick to explain the secret behind the success of their new rayon blends, manufacturers point out that rayon has a remarkable ability to provide fine appearance. Its strong affinity for dyes and for creating cross-dyeing effects of limitless variety are put to profitable use. And rayon can impart sturdiness, shrink resistance and luxurious hand in either tropical, winter or year-round suitings.

Of equal importance is rayon's thrifty ability to create volume sales without sacrifice of the best quality standards.

The answer comes from the Manufacturers!

50% RAYON *"Oversold overnight," says Burlington Mills of this 50% Rayon—50% Dacron fabric.*

85% RAYON *"Particularly good for pants—especially tropical weight washables," says Mooresville Mills, of this 85% Rayon—15% Nylon blend.*

50% RAYON *"Tremendous success on this number. Can be washed without ironing," says Pacific Mills of this 50% Rayon—50% Orlon blend.*

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

World's largest producer of man-made fibers

RAYON ACETATE VISTON* FILATEX®

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

*TMC & COC

WHY?

Courtesy Bangor Mills, Inc., Pen Argyl, Pa.

DO TRICOT MEN PREFER

"DRY" HUMIDIFICATION?

BECAUSE

- NO CENTRAL SYSTEM REQUIRED
- UNIFORM RELATIVE HUMIDITY MAINTAINED WITHOUT THE RELEASE OF ANY FREE MOISTURE
- STATIC ELIMINATED
- HIGHER BREAKING STRENGTH; FEWER END BREAKS AND DROPPED STITCHES INSURED
- HEATING AND COOLING PROVIDED IF DESIRED
- TYPICAL INSTALLATION CAN BE COMPLETED IN ONE DAY DURING NORMAL WORKING HOURS
- NO EXPENSIVE UPKEEP REQUIRED

AIR-PERME-ATOR INVITES YOUR INQUIRIES. OUR ENGINEERS WILL GLADLY MAKE A SURVEY AND RECOMMENDATIONS ON YOUR NEEDS — ENTIRELY WITHOUT OBLIGATION.

Write for illustrated booklets.

"DRY" HUMIDIFICATION ALSO FOR CARDING, COMBING, ROVING, SPINNING, WEAVING, AND THROWING.

AIR-PERME-ATOR MFG. CO.

300 Preakness Ave.—Paterson 2, N. J.

NEWS *of the Month*

AMERICAN DELEGATES to the International Cotton Textile Conference in England, photographed on board the "Queen Mary," just before it left for England, include, left to right: Dr. C. T. Murchison, economic advisor, ACMI; Gordon Harrower, president, Wauregan Mills; N. S. W. Vanderhoef, vice president, Turner Halsey Co.; Percy S. Howe, Jr., president, American Thread Co.; W. A. L. Sibley, treasurer, Monarch Mills, and president of ACMI; Robert T. Stevens, chairman, J. P. Stevens & Co., and delegation leader; Alonzo F. Bonsal, vice-president, Joshua L. Baily & Co.; Robert C. Jackson, executive vice president, ACMI; Ed Lipscomb and Read Dunn, National Cotton Council; and John W. Murray, ACMI.

for the first time by a cooperative undertaking of manufacturers, distributors, users of wool felt, the National Bureau of Standards, and the Dept. of Commerce. The new standard, on which The Felt Association, New York, worked for a number of years, has just been published by the government as Commercial Standard 185-82.

The new standard establishes standard methods of test, rating, certification, and labeling of wool felt, and it provides uniform bases for fair competition. While adherence to the standard is voluntary, if reference is made to it in contracts, labels, invoices, or advertising matter, the provisions of the standard are enforceable through the usual legal channels as a part of the sales contract.

To date, over 100 manufacturers and organizations have accepted the new standard, including felt manufacturers, furniture makers, hospitals, department stores, laboratories, and government agencies.

Wool-Scouring Survey Launched. An economic survey of the wool-scouring, grease-recovery, and refining industries in the United States has been undertaken by Lowell Textile Institute Research Foundation, Lowell, Mass., by means of a financial grant from the Bureau of Agricultural Economics of the U. S. Dept. of Agriculture, Washington, D. C.

The interest of the USDA in the project stems from a desire to know more about the production, manufacture, and distribution of the by-products of wool so that perhaps it can help stabilize the market and provide for continued expansion in the field. The factor of stream pollution has also added governmental interest to the grease-recovery prospects of wool scouring, from the view of both increasing manufacturers' profits and cleaning up U. S. waterways. And an interest in wool grease for use in the defense effort has been expressed by the Dept. of Defense.

A questionnaire has been addressed to wool scourers throughout the nation regarding their operations. A 100% response is hoped for so that the final published report will give a clear picture of the general situation in the country.

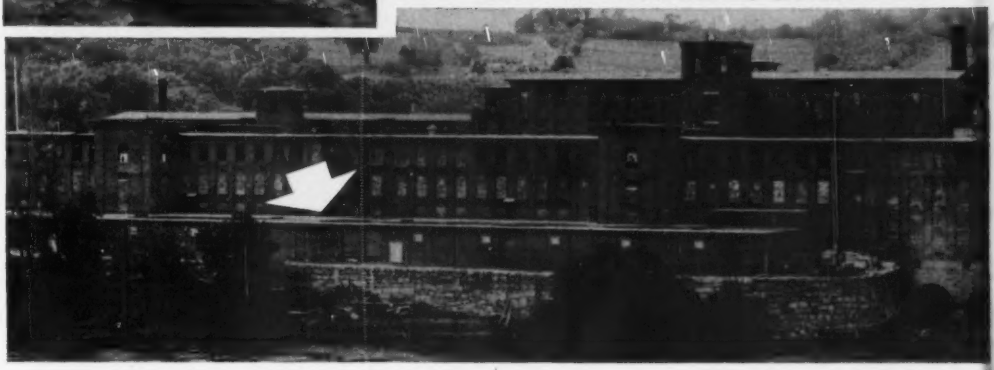
Talks on Textile Engineering. A full-day's program on textile engineering has been arranged by the Textile Engineering Div., ASME, as part of the ASME annual meeting to be held at the Hotels Statler and McAlpin, New York, N. Y., on Friday, Dec. 5.

CONTINUOUS SPINNING of viscose tire-cord and textile yarns at Industrial Rayon Corp. was the subject of much interest to and discussion by members of the American Assn. of Textile Technologists on a recent field trip to the company's Painesville, Ohio, plant. Walter Moore, IRC area supervisor, points out the company's patented thread-advancing reel that allows individual ends to be formed from solution, fixed, and wound in a non-stop process. Interested AATT members are Robert Ellsworth, of *Modern Textiles* magazine, Stephen Rudo of Werner Textile Consultants, and Irene Blunt of the National Federation of Textiles.

Here's just the insulation for those cold Maine winters

—FOAMGLAS

Edwards Division, Bates Manufacturing Company, Augusta, Maine.
General Contractor: Robert Bosse & Company, Lewiston, Maine.



● Moisture condensation is a terrific problem even in the South, where winters are fairly warm.

But the warm and humid weave shed shown here has to operate during winters that range down to minus ten. Zero weather is common. Second-rate insulations don't have a chance because moisture almost always manages to work its way past the vapor barrier—into the insulation.

FOAMGLAS, on the other hand, does not simply have a vapor seal. FOAMGLAS *is* a vapor seal, all by itself. It's a 100% all-glass product, molded into rigid, easy-to-lay blocks. Each of the tiny dead-air cells acts as an insulation pocket to check heat flow, and the glass wall around each cell provides an effective moisture barrier.

For all of this, FOAMGLAS has amazing compressive strength; up to 9 tons per square foot when properly installed. This great strength allows you to use FOAMGLAS for core wall construction (as they are doing here), for roofs, or under a concrete slab in the floor.

Send the coupon for a sample of FOAMGLAS and literature on how to use it.

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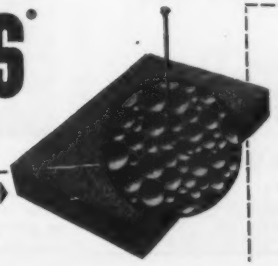

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NEWS ABOUT Suppliers

Equipment Suppliers

Atlantic Steel Co., Atlanta, Ga., has named R. E. O'Neill assistant general manager of sales and has made G. O. Stevenson manager of the rolled products sales division.

American Steel & Wire, Cleveland, Ohio, recently named Walter V. Farr treasurer of the U. S. Steel Div.

Boston Woven Hose & Rubber Co., Cambridge, Mass., has promoted H. S. Johnson to director of merchandising, L. M. Atwood to assistant general sales manager, and J. H. Alsen to director of engineering applications.

Elgin Softener Corp., Elgin, Ill., has appointed Stephen C. May as sales representative for Georgia, Florida, and lower South Carolina, with headquarters at 585 Sherwood Road, N. E., Atlanta, Ga.

Graver Tank & Mfg. Co., Inc., East Chicago, Ind., has transferred its Ohio district sales office to Cleveland, Ohio. Dwight R. Rhodes continues as manager.

Kornylak Engineering Corp., Jersey City, N. J., has formed a new division to manufacture a modern yarn-handling system. The system is called "Yarnflo," several installations of which are said to have attracted considerable attention in the textile industry.

Lincoln Engineering Co., St. Louis, Mo., recently announced the appointment of Carl H. Mueller as director of engineering.

Minneapolis-Honeywell Regulator Co., Industrial Div., Minneapolis, Minn., has appointed C. L. Peterson general sales manager.

Paramount Textile Machinery Co., Chicago, Ill., has transferred Loren D. Ross from Chicago to Chattanooga, Tenn.

Sonoco Products Co., Hartsville, S. C., has acquired Gates Paper Co., Los Angeles, Calif. E. H. Southwell, former president of Gates, remains as Sonoco's manager for the West Coast plant and will also have charge of sales for the Western division.

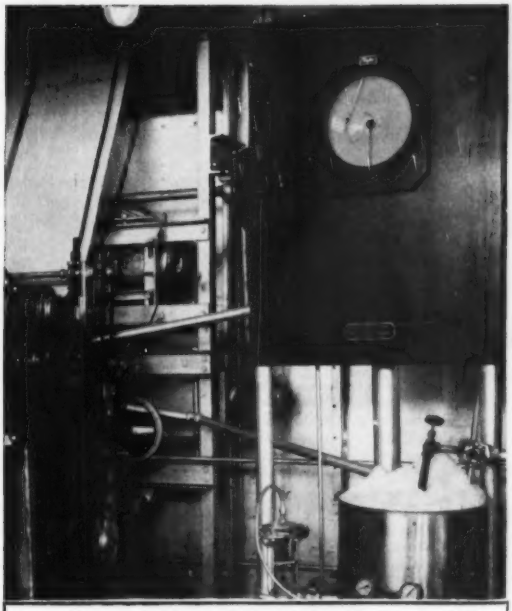
H. J. Theiler Corp., Whitinsville, Mass., has appointed Thackston & Redding, Inc., Spartanburg, S. C., as its Southern agent, to be sales representatives for the Staubli dobby, Staubli card-punching machine, Staubli shuttle-truing

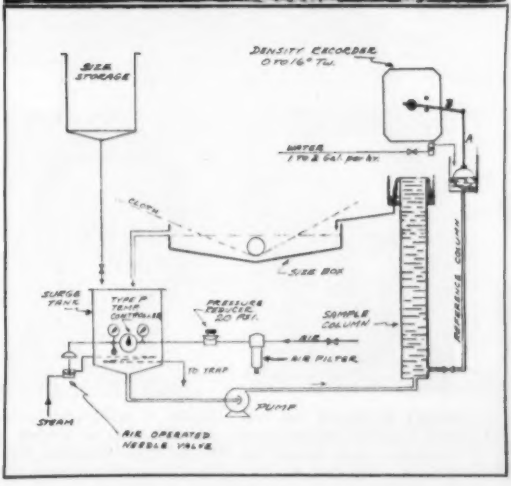
HARRY K. SMYTH has been elected a vice president of Saco-Lowell Shops, Boston, Mass. He will continue to serve as general manager of the Sanford Div., Sanford, N. C.

WILLIAM H. STEINKAMP has been made vice president and general sales manager of Beckman Instruments, Inc., with offices located in South Pasadena, California.

Try this for SIZE!

Taylor Twaddle Recorder helps hold sized goods to proper weight . . . cuts down rejects!





HOW can you tell accurately whether cotton knit goods are getting the right amount of size for efficient handling and still stay within the maximum limits set by your customers? By measuring the specific gravity of the sizing solution! This new Taylor Twaddle Recorder tells you *at a glance* whether goods are being properly sized—by giving you a recording on the direct-reading Twaddle scale.

RESULT: by regularly observing the chart record you get uniformly sized knit goods with minimum rejects.

If you want automatic control, we can deliver this same system with a Taylor FULSCOPE* *Controller* which will give you (in addition to a chart record) continuous *automatic control* of the specific gravity of the size solution.

Drawing at left shows how this instrumentation could be applied in your mill. Picture above is from a well known knitting mill where this system is being operated with great success.

If you'd like more information on this system, call in your Taylor Field Engineer, or write Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

• • •

Instruments for indicating, recording and controlling temperature, pressure, flow, liquid level, speed, density, load and humidity.

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News About SUPPLIERS (Continued)

machine, Robot reed and heddle-cleaning machine, and the company's Schweiter KM cone winder.

Trumeter Co., New York, N. Y., has appointed Harold E. Linderson representative in the New England territory.

Chemical & Yarn Suppliers

Carbide & Carbon Chemicals Co., New York, N. Y., has appointed two district sales managers, Henry L. Pero in New England and John S. McGilly in the New York area. They will be in charge of sales of dynel in their districts. Robert W. Gaines will take charge of development work on new products from dynel. Frederick C. King was named to correlate the military-development program and to assist Mr. Gaines in the supervision of certain of the new civilian developments.

Celanese Corp. of America, New York, N. Y., has introduced its new Celaperm color-pigmented acetate yarn. Celanese is now in a position to offer the trade a continuous supply of the color-pigmented yarn in a wide range of colors and deniers. John Holmes, vice president, has been named special assistant to K. C. Loughlin, vice president and general sales manager, Textile Div. J. C. Cook was named sales manager for knitted fabrics in the same division.

Chemstrand Corp., Decatur, Ala., recently announced that Dr. Bruno R. Roberts has assumed duties as research scientist with the research and development department.

Diamond Alkali Co., Cleveland Div., has named Earl J. Mills manager of the Chicago branch sales office, succeeding the late Charles W. Klaus, and has named John W. Kennedy manager of the Southwest District sales office at Houston, Texas.

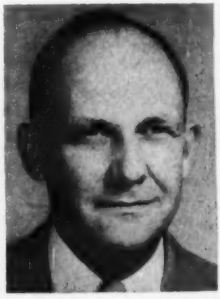
Goodyear Tire & Rubber Co., Akron, Ohio, has announced that William F. Gerrow, Jr., field sales representative of its chemical division, has been assigned permanently to the Atlanta district.

Libbey-Owens-Ford Glass Co., Toledo, Ohio, has named Willis J. Gray district sales manager of the Fiber Glass Div., with headquarters in Los Angeles, Calif.

Nuodex Products Co., Elizabeth, N. J., has named Dr. John R. Skeen, former director of the market-research department of Foster D. Snell, Inc., vice president in charge of research and development.

Tennessee Eastman Co. and **A. M. Tenney Associates, Inc.**, New York, N. Y., recently announced that Charles P. Bertland has been made sales manager of the New York territory. Ray W. Greene has been appointed district sales manager of the New England territory.

Jacques Wolf & Co., Passaic, N. J., has appointed George C. Morehouse its representative in the Providence, R. I., area.



ROBERT G. RUARK has been made executive assistant to the president of Corn Products Refining Co., New York, N. Y.

ERWIN N. DARRIN has retired from the board of directors of Draper Corp., Hopedale, Mass. He had served the firm since 1915.

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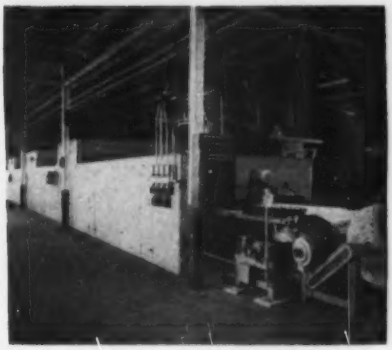

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A new Fade-Ometer replaces a veteran on the job for 25 years

In January of 1924, General Aniline & Film Corporation purchased its first Atlas Fade-Ometer for use in the company's research laboratory as the means for testing the light-fastness of General Aniline dyestuffs under accelerated conditions. In 1949 this same machine—after 25 years of dependable use—was turned in to us on the purchase of a new machine which immediately took its place alongside the many other Fade-Ometers bought by General Aniline (The Model FDA pictured above was purchased in 1940) during the intervening years.

By subjecting product samples to Fade-Ometer testing, General Aniline technicians can accurately foretell how dyed materials will wear and look in any climate and however used. Thus, the General Aniline reputation for quality is carefully protected at all times.

* * *

The source of light in the Fade-Ometer in the photo is still as reliable as it was on the day the machine was delivered, and is still the most accurate reproduction of Noon June sunlight ever devised.

Throughout the years, however, Atlas has maintained its own research program dedicated to improving the entire line of Atlas-Ometers—the Fade-Ometer, Weather-Ometer, and Launder-Ometer. The result has been machines that are simpler to operate, faster in providing results, more economical, and as always—thoroughly reliable.

ATLAS ELECTRIC DEVICES COMPANY

361 W. Superior St., Chicago 10, Illinois

Manufacturers of accelerated testing devices for more than a quarter of a century

298 For more information, write direct or use Reader Service post card.

News About SUPPLIERS (Continued)

Other Services

Bache & Co., New York, has announced the establishment of a Fiber Div. in the commodity department to deal in jute, sisal, and other fibers. E. F. Talbot will head the new division.

Fabric Research Laboratories, Inc., Boston, Mass., has announced that Dr. Simon Williams represented the laboratories at the International Conference on Fiber Blending held in Edinburgh, Scotland, June 2 through 6, under the auspices of the British Textile Institute. Dr. Williams also represented the Office of Naval Research, for whom Fabric Research Laboratories has been conducting a study of wool utilization with special emphasis on the blending of wool with other fibers. After the conference, Dr. Williams spent several weeks visiting manufacturers and research organizations in England and on the Continent.

ICS, Scranton, Pa., has a group of eight new home-study courses for personnel employed in the textile industry. Courses for loom fixing, finishing and dyeing, hand weaving and designing, cotton carding and spinning, cotton warping and weaving, rayon throwing and warping, rayon warping and weaving, and textile mill supervisors are offered. The new courses are available to individual students and to employers who wish to provide specific training for key personnel.

National Cotton Council, Memphis Tenn., has announced the appointment of Dr. H. G. Johnston of College Station, Texas, as head of the research development unit, production and marketing division.

Philadelphia Textile Institute, Germantown, has announced the addition of new members to the faculty: Herbert W. Allison, instructor in chemistry, Herbert L. Altman, instructor in the accounting department, and Charles A. Wetzel, instructor in the jacquard department.

Plastic Coatings & Film Assn., New York, N. Y., has developed standard test methods for determining the various properties of pyroxylin and vinyl-coated fabrics and vinyl sheeting. The tests are designed to assist purchasers of these plastic materials to determine whether merchandise has the qualities for their particular requirements or meets specifications they have set up.

Wyandotte Chemical Corp., Wyandotte, Mich., has established a predoctoral study fellowship in organic chemistry at Wayne University. Vince Traynellis of South Hackensack, N. J., a graduate of Rutgers University, is the first to receive the award of $1,200 plus tuition and fees granted by the fellowship. The fellowship will be awarded annually by the personnel committee of the department of chemistry at Wayne University.

AMES B. HETTRICK, left, has been made manager of the Calco Chemical Div. engineering and development department, Bound Brook, N. J. ALDEN R. LOOSLI, right, has been made assistant to the general manager of Calco.

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CORN STARCHES, DEXTRINES, GUMS, CORN SUGARS & SYRUPS

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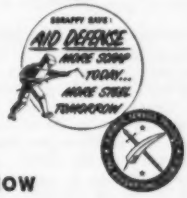
John:
Douglas Crown Thin Boiling Starch is made in all fluidity ranges to suit each individual mill's requirements. Let's arrange for a trial order of the type recommended for our purposes.
Jim

Scrap iron and steel supplies are again running short of the amounts needed to maintain the present high level of steel production.

You're asked to search out the idle iron and steel in your plant and yard . . . and turn it over to your local scrap dealer.

Be sure to include obsolete machinery, un-used jigs and fixtures, gears, pulleys, chains, pipe and other equipment . . . non-ferrous scrap is needed now, too!



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For equipment and metal surfaces subjected to extreme acid and alkali conditions. Brush or spray costs less than 4¢ sq. ft. Write for information.

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Textile Finishers Realize

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Many of the largest textile finishers know—Exsize-T keeps its starch digestion power for long periods of time . . . when stored at a cool temperature!

Even in the desizing bath the action of Exsize-T will please you with its long life. Safe. Efficient. Economical.

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NEWS ABOUT *Mills*

Cotton Mills

Calvin Cotton Mills, Inc., Charlotte, N. C., has installed 75 additional looms in its No. 2 mill, which now has a total of 340 looms. The changeover of all spinning to Whitin Superdraft has also been completed.

Consolidated Textile Co., Inc., Lynchburg, Va., has installed two Eriez permanent-magnet separators in the feeding line of the plant's roving-waste machine to remove tramp iron from reworkable cotton waste.

Fulton Bag & Cotton Mills, Atlanta, Ga., has begun preliminary work on a new $250,000 finishing plant that is expected to be completed by the end of 1952. It is to be located next to the main mill building.

M. Lowenstein & Sons, Inc., New York, N. Y., has purchased the Empire Theater at Broadway and 40th St. and plans to replace it with a 16-story building for its own use. The move will take this firm from the Worth Street district to a location in the garment district.

Opelika Mfg. Corp., Opelika, Ala., has completed a 46,000-sq.-ft. addition to its local plant. When new machinery is installed, this plant will have over 30,000 spindles and 1,000 looms. The plant in Hawkinsville, Ga., is adding 15,000 sq. ft. and will install new single-process bleaching and a finishing range.

Pepperell Mfg. Co., Boston, Mass., has awarded the contract to erect a new mill building in Abbeville, Ala., to Batson-Cook Construction Co. The plant is scheduled to be completed in January if copper and steel are available. Pepperell has rented a downtown building to be used for training purposes.

Republic Cotton Mills, Great Falls, S. C., a division of J. P. Stevens & Co., Inc., has begun work on an expansion program in its dye plant at Mill No. 3. The mill's cloth room will also be enlarged, and additional looms will be installed. The entire program will cost $1,250,000. The new dye plant will cover 27,000 sq. ft. of space.

White Horse Mill, Greenville, S. C., a division of Maverick Mills, is installing additional looms and spindles. Space for this expansion was previously provided for.

Woodside Mills, Greenville, S. C., has four combers in operation at its Liberty, S. C., plant. A new 10,000-sq.-ft. dyehouse to handle combed chambray is still under construction. Woodside is installing 100 new 5-in. Draper XP looms at its Easley, S. C., plant to replace other looms.

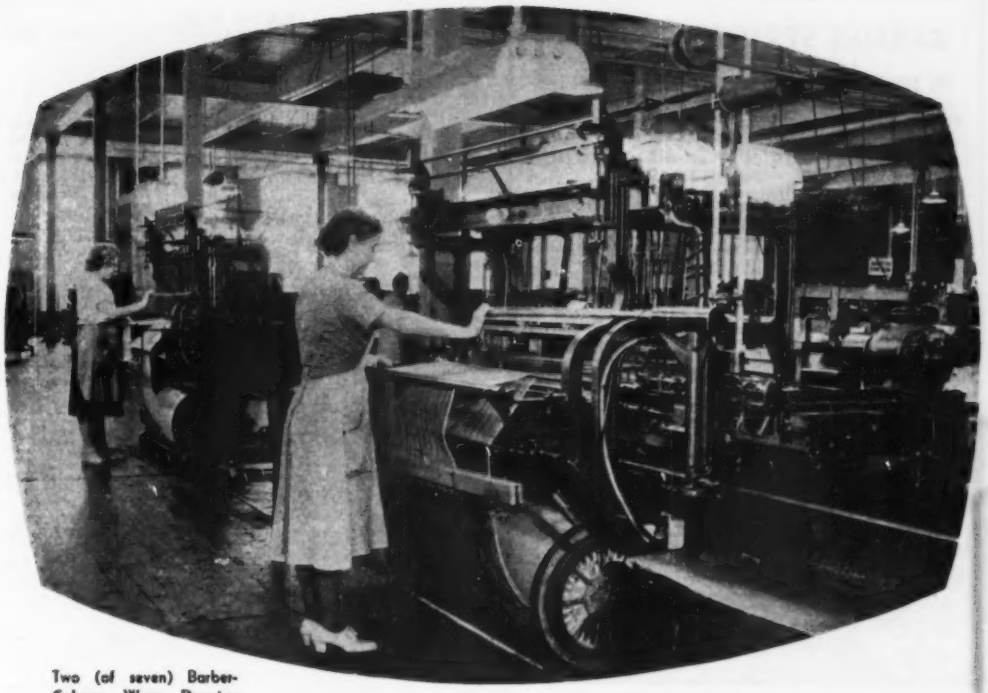
Woolen & Worsted Mills

Georges River Woolen Mill, Warren, Maine—Lionel F. Jelous, president and treasurer of this mill, has sold his interest to Allen L. Goldfine, head of Winthrop Mills, Winthrop, Me. Mr. Goldfine has been chairman of the board of Georges River.

Goodall-Sanford, Inc., Sanford, Me., will build a new mill in the South. New machinery on order, valued at $1,900,000, will be installed. The mill will start with spinning operations and gradually expand to include weaving.

James Lees & Sons, Bridgeport, Pa., is building a $29,000 addition. It will be of brick construction. Lloyd F. Kershner & Son, Norristown, Pa., is the contractor.

Puritan Looms, Inc., is establishing a spinning and weaving mill at Monroe, N. C., to produce hair cloth.



Two (of seven) Barber-Colman Warp Drawing Machines in the Dan River Mills, Schoolfield Division, Danville, Virginia. These machines draw up to 10 harness and 4 banks of drop wires. Operatives are two women and one helper.

BARBER-COLMAN WARP DRAWING MACHINES Reduce Drawing-in Costs

In a mill where patterns are changed frequently, the speed, accuracy, and versatility of Barber-Colman machines are the basis of a good investment. These machines provide rapid warp renewal for straight or complicated draws with equal efficiency, draw plain or multi-colored warps, perform single or double draws on one or two sheets, and work from either a leased or flat sheet. The reed, harness, and drop wires are all drawn simultaneously. The machines shown above are delivering around 9 warps a day of cotton stripe material that runs 2884 ends, 67 sley, employs a straight draw, uses 6 harness, 4 banks of drop wires, and is drawn at 200 picks per minute.

AUTOMATIC SPOOLERS
SUPER-SPEED WARPERS
WARP TYING MACHINES
WARP DRAWING MACHINES

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ROCKFORD, ILLINOIS • U.S.A.

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These services will be under the direction of Mr. Peter M. Fakula now affiliated with Barnes Textile Associates, Inc. They will complement our established consulting activities in the fields of general engineering, industrial engineering, cost and quality control, materials handling and industrial relations.

Mr. Fakula has had broad experience in a variety of industries in both consulting and operating capacities. Recently he completed an outstanding project for a well-known textile company which brought about close coordination of production and sales. He has been able to apply to textiles many of the principles which have proved so successful in the automotive and aircraft industries.

We will be pleased to give further information about the services rendered by our new Peter M. Fakula Division, as well as by our other departments.

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Huyck blankets retain high shrinkage and finish properties to the last.

PALMER BLANKETS—also available for your special requirements.

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F. C. HUYCK & SONS
Kenwood Mills · Rensselaer, N.Y.

News About MILLS (Continued)

Eight Bradford-system spinning frames and 42 wide looms have been installed. When installation is completed, the plant will have a total of 72 looms.

Rock River Woolen Mills, Janesville, Wis., is completing plans for an addition to its mill and will award the construction contract at an early date. Arthur Kuenzi, Watertown, Wis., is the engineer.

Star Woolen Co., Cohoes, N. Y., has expanded its plant facilities in space leased in the former Fuld & Hatch Co. mill. Machinery for the garnetting of rayon has been installed.

Woonsocket Worsted Co., Woonsocket, R. I., is concentrating its operations at its new mill at Laurens, S. C.

Synthetics Mills

Burlington Mills Corp., has put into operation the former Southern Silk Mills plant at Kernersville, N. C. C. A. Stone has been named superintendent. The plant's 200 looms will run on filament synthetics and come under the general supervision of Carlyle Lewis, High Point, N. C., group manager of five similar mills.

Duffy Silk Co. new $400,000 plant near Murphy, N. C., which began partial operations several months ago, is planning full production as soon as possible; equipment installation is being speeded up. Paul Hemmerich, Jr., is manager.

Duplan Corp., New York, has received a license from Herberlein & Co., Swiss firm, to produce thrown nylon yarns.

Haynesworth Mill, Anderson, S. C., has received an allotment of controlled materials for a new expansion project. The estimated cost is $450,000.

Nyl-de-Chine Corp., Lansdale, Pa., has been formed by Harold Berger, of Philadelphia, Pa., to process rayon and other synthetic yarns. The company has been incorporated for $100,000 and will be established in Lansdale.

Nylon Processing, Inc., Madison, N. C., began operations recently in a 20,000-sq.-ft. building on Highway 220. The firm will process nylon for the hosiery industry.

Princeton Worsted Mills, Trenton, N. J., has begun the manufacture of Dacron fabrics in its new plant at Kingstree, S. C.

Robbins Mills, Inc., Raeford, N. C., has installed machinery to produce spun-synthetic yarns on the tow-to-yarn system using Pacific converters, gill boxes, pin drafters, and Whitin long-draft spinning.

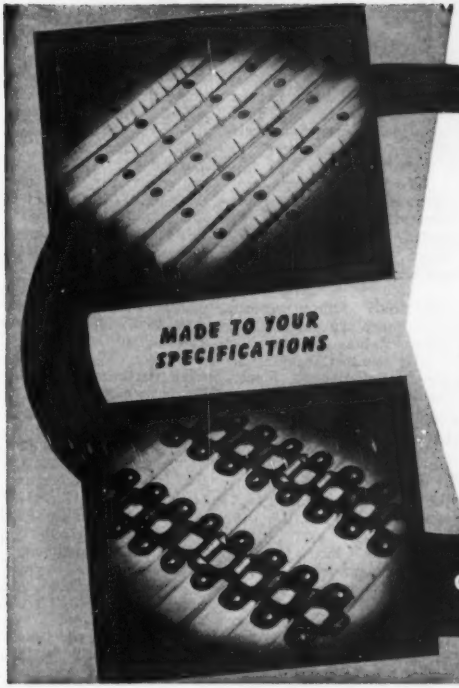
Susquehanna Mills, New York, N. Y., has received RFC approval for a $1,500,000 loan at 5% with a five-year maturity. Proceeds will be used for working capital in filling Army contracts totaling about $4,000,000.

Textron, Inc., Providence, R. I., is reported to be considering the construction of an office building in Greenville, S. C., for many of its executive staff, since so many of its mills are now in the South. According to its 1951 report to stockholders, Textron now has seven plants in New England, 13 in the South, and two in Puerto Rico.

Knitting Mills

Andrews, S. C.—The Andrews Development Corp. has awarded a contract for a one-story building, 120x200 ft., to be occupied by Oneita Knitting Mills, Utica, N. Y., under a long-term lease for a new branch mill with 300 employees. Biberstein, Bowles & Meacham, Charlotte, N. C., is the architect and engineer. Daniel Construction Co., Greenville, S. C., is the contractor.

Avonshire Knitwear Co., Philadelphia, Pa., has begun the manufacture of full-fashioned sweaters. Leonard Pratt, Jr., president of the company,



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SARGENT has unlimited facilities for making slat aprons of all types and sizes, and to your exact requirements . . . feed aprons and conveyor aprons for various machines . . . doffer aprons for Wool Washing and Drying Machines . . . bottom and spike aprons for Automatic Feeders of all types. All are made from selected beech or maple that has been thoroughly air dried. Slats are fastened to chains, to leather or to rubber belts. Illustrated . . . are typical Sargent Spiked Aprons built up on especially strong malleable iron chains, supplied with convenient *coupling links*. These aprons also can be supplied with corrosion-resisting bronze chains, and either monel or stainless steel pins in the slats. Before ordering slat aprons please write us for Complete Information Bulletin (No. 182).

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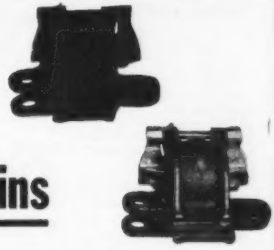

COMPARE these two tenter chain links. Top one, covered with baked-on grease and resin, is shown as it was removed from service. Bottom one, after only one hour and ten minutes of Oakite soak cleaning, is—and looks—as good as new. And the cleaning was easy—no volatile solvents, no laborious scraping—a minimum of downtime.

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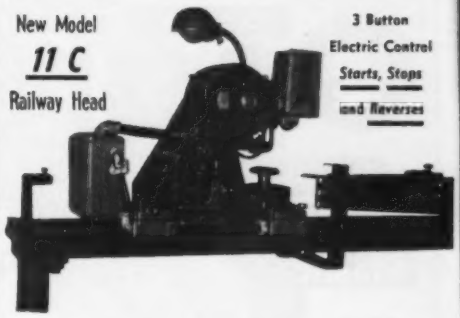

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All bars, levers and parts for mechanical control eliminated. Reduced maintenance cost.

Operator has instant control of sewing. Sewing stops at end of seam automatically.

Reverse button returns head to starting position while operator prepares fabric ends for next sewing. Head stops at starting position automatically.

Sewing unit remains idle while Head travels in reverse. Clutch operates in reverse by power or by hand. Model 11B without power reverse has two button control.

New safety guard over cloth pins. New electric cable folds away without dragging.

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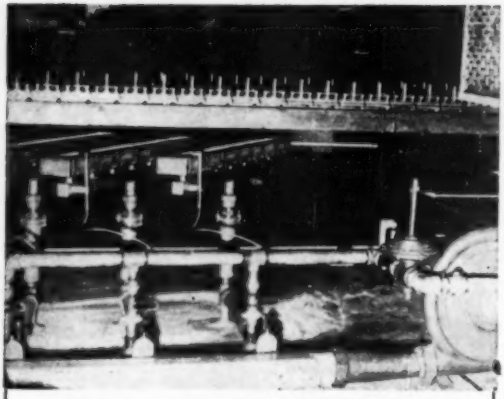

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Write for Bulletin 18

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News About MILLS (Continued)

has set aside the fifth floor of the Avonshire building for a completely separate full-fashioned sweater department.

Belvedere Hosiery Co., Charlotte, N. C., has begun production on six newly installed Robert Reiner 66-gauge full-fashioned hosiery machines.

Bergman Knitting Mills, Philadelphia, Pa., is installing a new washing and tumbling unit at a cost of $6,000. The new equipment will supplement existing units.

Berkshire Knitting Mills, Reading, Pa., is completing its new plant at Andrews, N. C. It will soon have nearly 50 of the latest-type full-fashioned machines in operation.

Del-Knits, Inc., Delavan, Wis., has been acquired by a local group headed by C. A. Burhans and will be enlarged by a 10,000-sq.-ft. addition that will provide space for added knitting machines. The output is to be expanded from knit dresses to include other knitted outerwear specialties.

Excel Hosiery Mills, Union, S. C., has installed 15 new 108-needle Scott & Williams knitting machines to manufacture men's cushion-sole socks. The company plans to install 15 additional machines.

E-Z Mills, Bennington, Vt., is preparing to remove its operations to a new location at Cartersville, Ga.

Graham Hosiery Mills, Burlington, N. C., has installed a 66-gauge Kalio full-fashioned knitting machine. Another machine of the same type will be delivered and installed later.

J. M. Hammerman, Inc., Los Angeles, Calif., is installing several new Lieberknecht 66-gauge, 32-section, full-fashioned knitting machines. The firm's new brand, LaReine, will be made on these machines.

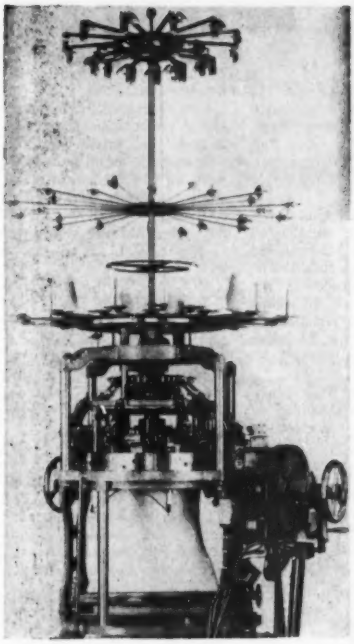
Herbert Mills, Inc., has leased a 25,000-sq.-ft. building in Marion, S. C., to manufacture knitted outerwear. The company, a division of Meredith Associated Manufacturers, New York, N. Y., is now installing machinery.

Johns Hosiery Mills, Inc., is the name of a new hosiery mill that will occupy a building at Glen Alpine, N. C., that formerly housed Glen Alpine Knitting Mills. About 90 hosiery knitting machines, 25 loopers, and other equipment are being installed. More equipment will be installed later. Z. W. Brown is owner of the new mill, and James T. Parkins, Sr., will be plant manager.

Krueger Knitting Mills, Mohnton, Pa., will change its name to Marathon Knitting Mills, Inc.

Manchester Knitted Fashions, Inc., Manchester, N. H., will increase its knitting department space to approximately 20,000 sq. ft. and add several more knitting machines to the 300 now in operation. Expansion will involve the transfer of the entire knitting department from the third to the fourth floor of the plant. New machinery has been ordered for delivery within the next few weeks.

THE TRICOT DIVISION OF GLEN RAVEN KNITTING MILLS has started the production of fine gauge tricot fabrics in this new plant at Glen Raven, N. C. All new machinery has been installed.



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ORDNANCE GAUGE MACHINES

IT PAYS TO USE WESCO
ELECTRIC STOP-MOTIONS
FOR OUTERWEAR • UNDERWEAR • HOSIERY
STANDARD THE WORLD OVER

Performance—WESCO Electric Stopmotions on knitting machinery are the logical choice of men who know how to get the best performance from the machines they buy—Specify WESCO and you get maximum production. Installations are simple and easily made.

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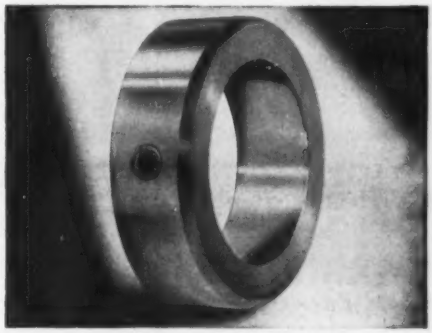

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Prismatic lenses assure optical accuracy. Normal vision resumed by slightly lifting head. Used with or without eye-glasses. Order now for 10-day trial. Return if not satisfied. $10.50. Send for folder.

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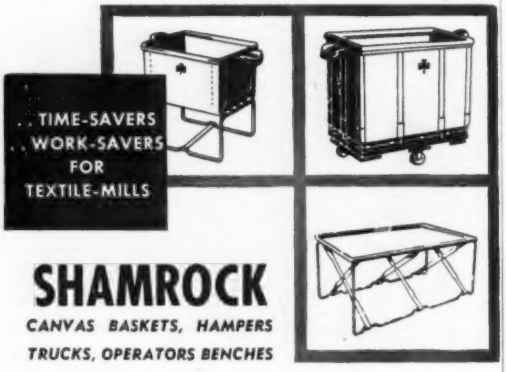

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News About MILLS (Continued)

Moser Hosiery Mill, Raleigh, N. C., has been incorporated by B. A. Moser, Doane Moser, and W. S. Foster, all of Burlington. The authorized capital is $100,000.

Nolde & Horst Co., Reading, Pa., plans to centralize all its seamless and full-fashioned operations in Womelsdorf. The company is considering the construction of an additional one-story building, similar to the one now in use, to house new equipment.

Penlyn Knitting Mills, Philadelphia, Pa., has expanded its sewing department to meet the growing demand for its T-shirts. Ten new sewing machines have been added and 15 more workers employed. This move will double the firm's production. Al Goldstein is the owner.

R. & S. Hosiery Co., Inc., Hendersonville, N. C., recently incorporated with a capital of $80,000, will take over the company of the same name that was organized a few months ago. Harry Rogers is the company head.

Skyland Textile Co., Inc., North Wilkesboro, N. C., plans to build a new mill in or near West Jefferson, N. C. The company has not disclosed what it will manufacture here, but Skyland makes knit goods in its two other plants.

Southern Knitwear, Inc., plans to construct a plant at Charlotte, N. C., that will permit consolidation of operations now conducted in four different locations. Work on the new plant will begin about Jan. 1 and will be completed in about two years. The mill will be built in sections, one-story, air conditioned, of ultra-modern masonry construction, containing 60,000 sq. ft. of floor space. Sloan & Wheatley, Charlotte, N. C., is the architect.

Spartan Undies, Inc., Spartanburg, S. C., has been organized and will open a plant to manufacture children's underwear. The new firm is associated with Arthur Imerman Undergarment Corp., New York, N. Y.

Supreme Knitwear Co., St. Louis, Mo., has moved to a loft at 1110 Washington St. The entire floor is air conditioned and includes plant, stock rooms, designing rooms, sales, and executive offices.

Walker County Hosiery Mills, LaFayette, Ga., has been purchased by E. T. Barwick Mills, Chamblee, Ga., rug manufacturers. The new owner will install $150,000 worth of machinery for a new type of rug. The plant name will be Barwick Carpet Mills, Inc.

Wellknit Fabrics, Inc., New York, N. Y., has been organized by Saul Ludwig who recently resigned as vice president of Barbet Mills.

York Knitting Mills Ltd., Toronto, Ont., plans to expand its operations in Woodstock, Ont., where it already has three plants.

Dyeing & Finishing Plants

Ely & Walker Dry Goods Co., St. Louis, Mo., has completed the purchase of controlling interest in Southern Bleachery & Print Works, Inc., Taylors, S. C.

Globe Dye Works, Philadelphia, Pa., has installed a Babcock & Wilcox integral furnace boiler with a top capacity of 45,000 lb. of steam an hour. The existing boilers have a combined capacity of 40,000 lb.

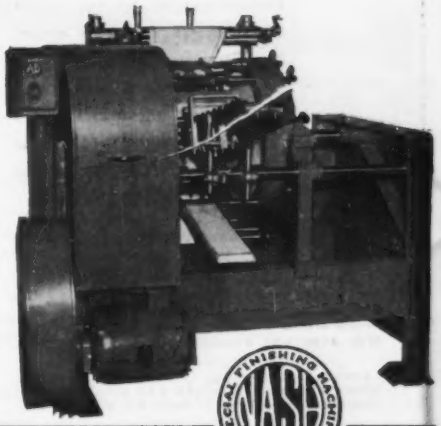
Patrician Piece Dye Works, Columbia, Pa., has been absorbed into the corporate structure of Schwarzenbach Huber Co., New York, N. Y. The maximum authorized capital of the parent firm is now $1,860,000.

Pottsville Bleaching & Dyeing Co., Port Carbon, Pa., has purchased the Snow White Bleachery, Royersford, Pa., from the Arthur Bidden Estate, Reading, Pa., and Oliver Krasley, Sr. Major improvements are planned for the finishing plant with the installation of new machinery. John L. Miller is the president. Ambrose Read and Ralph Garber are in charge of the bleaching and dyeing departments, respectively.

SAVE the Expense of Hand Washing with the No. 89 Nash AUTOMATIC BOBBIN WASHER

Washes flanged bobbins at 28 pieces per minute!

Textile mills throughout the country are finding the Nash No. 89 a time and money saver. It's a ten-spindle machine that does the entire washing and wiping operation automatically from start to finish. Eliminates the time and expense of hand washing. No dirt is left on the bobbin which would soil the yarn on the finished fabric. The cleaning solution used has a 140-degree flash point and is not toxic, assuring safe machine operation. The solution has no harmful effects on yarn, either natural or synthetic.



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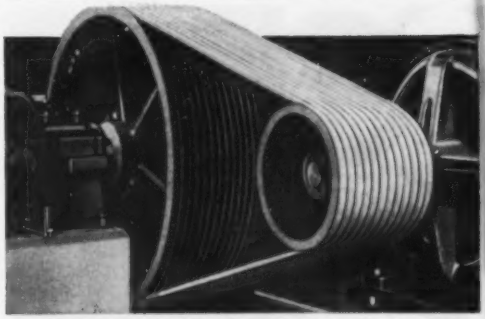

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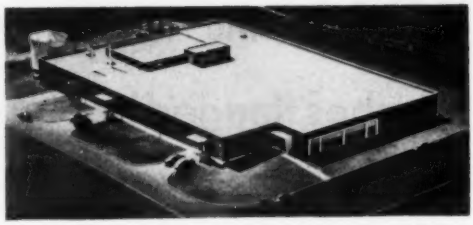
News About **MILLS** (Continued)



JULIUS KAYSER & CO. has begun operations in this new full-fashioned finishing plant in Liberty, S. C. This plant is part of Kayser's 10-year expansion and improvement program. Daniel Construction Co., Greenville, S. C., was the contractor.

William Whitman Co., Inc., Boston, Mass., has acquired from Aspinook Corp., its Jewett City, Conn., plant and its Arnold Print Works at Adams, Mass.

Miscellaneous

Anderson Flax Products Ltd., Lucknow, Ont., plans to build a 2-story, 75x200-ft. plant to cost $100,000.

British Ropes Canada Factory Ltd., Vancouver, B. C., has let the contract to Commonwealth Construction Co. Ltd., Vancouver, to build a one-story, 150x360-ft., steel-and-concrete addition. The price was $342,559. Architects are McCarter & Nairn, Vancouver.

Dunbarton Mill, Greenwich, N. Y., owned by Linen Thread Co., Inc., will be consolidated with the firm's home plant at Paterson, N. J.

International Latex Corp., Dover, Del., awarded the general contract for a new warehouse to Hughes-Foulkrod Co., 1505 Race St., Philadelphia. Glen Wood is the corporation's chief engineer. The building, of cinder block and steel frame, will be one story. 200x300 ft.

Taylor Fibre Co., Norristown, Pa., has let the general contract for a plant addition to Earl R. Kutz, of Norristown. The one-story brick addition will contain 27,000 sq ft.

Ludlow Sales & Mfg. Co., Boston, Mass., has signed a contract with the city of Indianola, Miss., for the construction of a $1,295,000 plant.

Salem Flaxtex Mills, Salem, Ore., a division of National Automotive Fibres, Inc., will concentrate production in the future on rugs and carpets. Certain loop-pile equipment will be transferred from California Cotton Mills, Oakland, Calif., an affiliated interest, and installed in a new building recently completed at Salem.

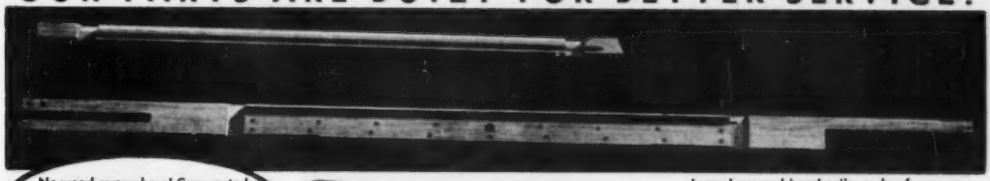
Foreign Mills

George Aftergood, Sr., manufacturer of swim suits and sweaters in Los Angeles, Calif., contemplates setting up a knitting mill in the State of Israel. Plans as now formulated include providing the Israeli plant with American-made machinery and probably with an American technical advisor to get the mill started. The firm will be known as T. A. S. Ltd., of Israel. It will produce primarily cotton T-shirts for local consumption and export.

Central Trust of China, 68 Yen Ping Nan Lu, Taipeh, Taiwan, is buying carding, spinning, and winding machinery, presumably for the establishment of a cotton mill in Free China Territory. S. W. Kung, 102 Maiden Lane, New York, N. Y., is the U. S. representative of Central Trust of China.

Compania Colombiana de Tejidos (Coltejer), Bogota, Columbia, is selling 50% of the shares it holds in a rayon

OUR PARTS ARE BUILT FOR BETTER SERVICE!



No wood screws here! Corrugated hickory reinforcing peg guaranteed to eliminate end splitting and thread catching.

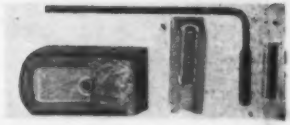
Loom Lays and hand rails made of finest kiln dried tough White Ash.

Native Hickory Shuttle Binder

Loom Jack Stick (White Ash)

Serrated Lug Block (Dogwood or Ash)

Hard Maple Compensating Block with oil impregnated wood bushing.



These seasoned hardwood loom parts are designed and manufactured for long and dependable service. Our patented interlocking metal picker holder (shown above) locks picker to stick with a bulldog grip and can be easily adjusted by removing allen-head set screw. We keep adequate supplies of all parts shown ready for prompt shipment. Order today.

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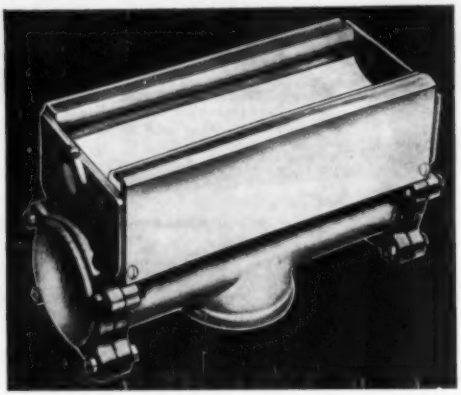

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is equipped with RIBBON TYPE FILTERING ELEMENT . . . Removes solids 10 microns (.00039) and larger. It is a radical departure from general practice, bowl being a transparent plastic. Consequently all foreign matter filtered from the airline is clearly visible, eliminating guess work as to when filtering element should be cleaned or bowl drained . . . There is NO WATER, DIRT OR OIL in compressed air that has passed through this filter . . . This piece of equipment gives maximum protection to air-operated controls on Slashers and Humidifiers, also Blow-off of the Knotting Device on Barber-Colman Spoolers, also Abbott Winders and Blow-off hoses in Weaving and Spinning Rooms . . . This new Filter affords our "Amoskeag" Pneumatic ROLL PICKER, Model A.V.T.A., or similarly operated equipment, maximum protection.

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News About **MILLS** (Continued)

plant at Itagui, near Medellin (known as Colterrayon), to Celanese Columbiana, S. A., which has a large mill of its own at Cali. The transaction amounts to about 8,000,000 pesos (US $3,200,000).

Continental Spinning & Knitting Mills (Pty), Ltd., Robertsham, Johannesburg, South Africa, has lately been established with 120 knitting machines from England, Switzerland, and Germany to specialize on angora and other woolen knitted outerwear for women. A. Albertghini is the managing director.

Dawood Cotton Textile Mills, Landhi, Pakistan, has started yarn production with 7,000 spindles. An additional 43,000 spindles will be added by early 1953. Spinning equipment is Japanese, and other machinery has been imported from Germany.

Fabrica de Hilados y Tejidos del Hato, Medellin, Colombia, S. A., is reported to be increasing its equipment to a total of 70,000 spindles. This figure includes a recent order for 6,000 Saco-Lowell spinning spindles and complementary preparatory machinery.

August Heubsch Ltd., West Berlin, Germany, is planning to erect a $3,000,000 carpet, upholstery, and drapery mill in West Berlin near the Spree River. The plant will spin, weave, and finish. Marshall Plan funds will be used. Construction will start this month and production will begin early in 1953. The company's former plant in Saxony is now under state control.

Java, Indonesia—Japanese industrialists are seeking a merger with Indonesian interests to set up a $2,800,000 textile plant in Java. The Japanese will install 16,000 spindles and 600 automatic looms with a capacity of 500,000 yds. a month. The Japanese Government shows an interest in the plan, which may be made a pattern for similar ventures elsewhere, and plans to give financial help to three Japanese companies concerned through the Export-Import Bank.

Maine Works, Cullybackey, North Ireland, has installed the first of four Standfast units for molten-metal dyeing. Dress linens will be processed.

Palermo, Sicily—U. S. Mutual Security Agency reports that 300,000,000 lire ($480,000) from funds of the European Recovery Program is going into construction of Sicily's first cotton-spinning plant, now being built outside Palermo. It will produce 2,200,000 lb. of yarn annually. Its 30,000-spindle capacity will make it Italy's largest modern cotton mill.

Premier Weaving Mills (Pty) Ltd., Johannesburg, South Africa, with a plant at 23 Hanan St., Jeppestown, is now operating 10 automatic looms on necktie fabrics. Ten more looms, dobbies and jacquards, will be added. E. Piatti is plant manager. Capitalization is equivalent to $84,000. The machinery is largely Italian. Dress goods will soon be added to the neckwear-fabric production.

Punjab, Pakistan—Construction has started on two cotton spinning mills, Kala Fauji and Khanewal Textile Mills. Together these plants will have 50,000 spindles. Two additional spinning plants are proposed for Nili Colony at Burewala. All of these plants will supply yarn to numerous hand-loom weavers of Pakistan.

Rawalpindi, Pakistan—A government demonstration plant for the processing of silk is being equipped with machinery imported from Japan.

Edwin R. Roesler, Frankfurt, Germany, operator of a hosiery mill, has received the first 32-section full-fashioned knitting machine made in West Germany from Oberlungwitzer Maschinenfabrik G.m.b.H., Wiesbaden. It is said that 19 additional similar machines are to be supplied to Roesler.

Union Spinning Mills, Port Elizabeth, South Africa, has recently bought 28 acres for future expansion of its plant.

Wangoratta Woolen Mills Ltd., Wangoratta (Victoria), Australia, has completed the erection and installation of equipment of a modern worsted-spinning unit. Present production of the company is about 1,000,000 lb. of yarn annually.

15,550,000 FEET OF *HOLT* MAPLE FLOORING!

Have gone into textile mills throughout the country since 1920 — with complete satisfaction to the mill operators.

When you think of floors, remember to specify *Holt* Flooring, made from Northern Wisconsin-Michigan Hard Maple.

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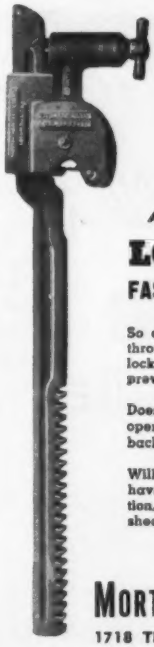

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So designed that when excessive strain is thrown against head, it automatically unlocks at locking plates, relieves strain, prevents breakdown.

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KNITTING MACHINE NEEDLES

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STE CROIX—SWITZERLAND

NEWS ABOUT Men

J. W. Abernathy, Newton, N. C., has been elected president of Trenton Cotton Mills, Gastonia, N. C. He succeeds **Arthur M. Dixon,** retired. Mr. Abernathy is also president of Carolina Mills, Inc., Maiden, N. C., and a director of seven other mills.

M. G. Allen, Jr., has been appointed superintendent of Alexander Mills, Forest City, N. C., replacing **S. A. Summey,** who retired after 35 years of service. Mr. Allen joined the organization in 1926.

George Archer, second hand in the weave room of Huntsville Mfg. Co., Huntsville, Ala., was recently promoted to overseer in that department.

A. E. Asmega has become chief industrial engineer for Atlantic Mills, A. D. Juilliard & Co., Inc., Stottville, N. Y.

Earl Bagley, who has been assistant superintendent of Dixie Mills, Inc., LaGrange, Ga., has been promoted to superintendent.

P. S. Baker, superintendent of the dyehouse of Hanes Hosiery Mills, Winston-Salem, N. C., has been elected to the company's board of directors. Also elected directors were **W. F. Deuschle,** superintendent of the knitting mill; **Curtis Edwards,** superintendent of boarding; **Lindsay Waggoner,** superintendent of finishing; and **F. E. Sturmer,** vice president and sales director.

Thomas N. Bancroft has been named president of Turner Halsey Co. He succeeds **William Woodward, Jr.,** who has resigned as president but will continue as a director. Mr. Bancroft will retain his position as president of Mt. Vernon-Woodberry Mills, Inc., Baltimore, Md.

William C. Beatty has been elected assistant treasurer of Textron, Inc., Providence, R. I. Mr. Beatty was formerly secretary and treasurer of Lonsdale Co.

Oswald Beck has been named head of the finishing department at the Uxbridge Mill of Bachmann Uxbridge Worsted Corp., Uxbridge, Mass.

Stephen J. Bercen has been named resident manager of Queen Dyeing Co., Providence, R. I. succeeding **William Z. White.** Mr. Bercen left Queen to join Kerriglen Finishing Corp. in 1949. He is succeeded as general superintendent of Kerriglen by **Charles Drew.**

William H. Borden has joined Borden Mills, Inc., Kingsport, Tenn., as assistant treasurer. He will be associated with his brothers, **John C.** and **Arthur B.,** in running the business.

C. E. Brierly has become overseer of weaving for Joseph Bancroft & Sons Co., Reading, Pa. He was formerly with Utica & Mohawk Cotton Mills, Utica, N. Y.

William A. Broadfoot, previously an officer of Aspinook Corp., Jewett City, Conn., has been named a vice president of William Whitman Co., Inc., Boston, Mass. **William J. Drocher** and **R. W. Smith,** both previously with Aspinook, have similarly been named vice presidents.

Fred Brook has been named general manager of Fawcett & Grant Ltd., Huntingdon, Que. He succeeds **Alex Fawcett,** who is retiring.

Harold Brooke is now superintendent at Melvyn Spinning Co., Strasburg, Va. He was formerly with Sheble & Wood Co., Salamanca, N. Y.

Joseph Buda has succeeded **Milton Beazley** as general manager of Beaunit Mills, Inc., but will remain with the company in an advisory capacity. Mr. Buda has been with the New York office of the company.

Henry D. Caldrice has resigned as overseer of finishing at Denna Woolen Mills, Sabattus, Me.

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Don't compromise on Quality --- Get the BEST
By every standard of comparison EMPIRE Textile Mill Crayons are the BEST . . . The result of careful research and study they are the result of more than a century of experience by Crayon engineers . . . When marking COUNTS you can always COUNT on EMPIRE Textile Mill Crayons
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ROY Ball Bearing Cotton Traverse Grinder produces the smoothest card grinding action ever achieved — breezing touch action — accurate side grind . . . added years of service to new as well as old grinders.

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Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)
Mule ropes all sizes diameters
Braided spindle banding for mules, etc.

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Plants at New Bedford, Mass. and Kings Mountain, N. C.

DANA WARP MILLS
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Cotton yarns, single and ply
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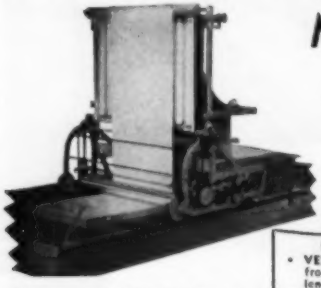
UTICA Hand Laying Up Machine for TUBULAR KNITTED FABRICS



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- **VERSATILE**—handles cloth from rolls or folds . . . any lengths.
- **QUICK INSPECTION**—holes and defects easily seen and turned out.
- **NO STRETCHING**—positive feeding eliminates all stretch.
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- **EVEN EDGES AND ENDS**—cloth goes over a spreader . . . no racking or waste.
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Here's a machine that lays up several times the amount that can be done by hand—and you don't need an expert to operate it. This new lightweight model piles cloth up to 7" high—standard machines 26", 32", 38" and 44" width rolls . . . others to order.

Check the features of this machine and you'll see why it's the best you can buy for laying up tubular knitted fabrics—*the machine you can't afford to be without!* Write today.

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Builders of Textile Machines Since 1903

News About **MEN** (Continued)

Roy W. Clements has retired as president of Globe Knitting Co., Grand Rapids, Mich., after 41 years with the company founded by his father.

Arthur C. Clifford has become assistant superintendent for Basin Mills, Orono, Me.

Joseph J. Colahan has been named manager of the carpet division of Goodall Fabrics, Inc., replacing **Frank F. Steimle**, who has retired. **Andrew V. Crean** will continue as assistant manager.

William Coutu has returned as overseer of dressing at Lincoln Mills Co., Pascoag, R. I. **William Cain**, who has been handling the dressing at Lincoln Mills, has returned to his own position as night superintendent.

Daniel Currier has become overseer of carding at Woolart Mills, Ludlow, Vt.

Arthur Davis, who has held a supervisory position at Aragon Mill, Rock Hill, S. C. has been appointed assistant superintendent of carding and spinning at Appleton Co., Anderson, S. C. Both are divisions of J. P. Stevens & Co., Inc.

William C. Fitzgerald, Jr., has been named plant manager at Wiscassett Mills Co., Albemarle, N. C. **C. Hall Carpenter** is now manager of the knitting department.

Claude Frederick, William F. Deuschle, Curtis Edwards, Lindsay Waggoner, P. S. Baker, and **Frederic E. Sturmer** have been named to the board of Hanes Hosiery Mills, Winston-Salem, N. C.

A. G. Gagnon, Jr., is now employed as section hand in the pin-drafter section of M & F Worsted Co., Providence, R. I. He was formerly with Lippett Worsted Co., Woonsocket, R. I.

J. L. Gregory, Jr., has been elected president and treasurer of Pannill Knitting Co., Inc., Martinsville, Va., succeeding the late **Gordon Pannill.** Mr. Gregory was formerly executive vice president. **William Gordon Pannill**, formerly a vice president, was elected first vice president, and **Robert S. Pannill** was elected to the board to succeed the late Mr. Pannill.

C. F. Grant, formerly of Spartanburg, S. C., is the newly appointed spinning-room overseer of Highland Park Mfg. Co., Rock Hill, S. C.

Paul Haberfeld, head designer at Jantzen Knitting Mills, Portland, Ore., has resigned.

Laurence N. Hale was elected president of the Paul Whitin Mfg. Co., succeeding **Paul Whitin**, who was named chairman of the board.

Carl Hard has become piece dyer at Worcester Spinning & Finishing Co., Cherry Valley, Mass.

Thomas Harrison has recently been appointed superintendent of the Raleigh Mills of American Woolen Co., Raleigh, N. C. He was formerly superintendent of the company's Arden Mills, Fitchburg, Mass.

Robert J. Hooker has resigned as treasurer of Hooker

RAY A. FERGUSON (left) has been elected president and director of Globe Knitting Works, Grand Rapids, Mich. WALTER W. WEISMANN (right) will assume the duties of chairman of the board.

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Merrow Overstitching Machines reflect over 60 years' experience in the manufacture of industrial sewing machines. The term "Merrowing" . . . used throughout the industry to describe overstitching . . . is recognition of this experience and "know-how."
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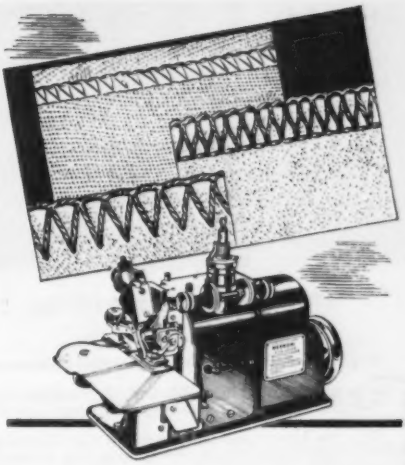
Let us demostrate the work of these machines on swatches of your fabrics.



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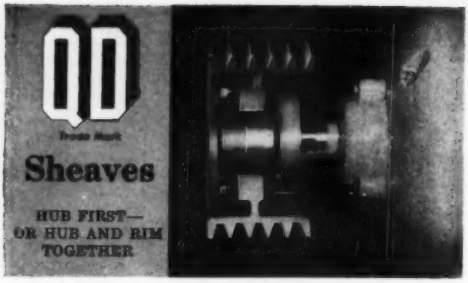

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Small sizes? Install the Worthington QD Sheave in one piece.

Large sizes? Install light hub first, then heavier rim.

Changing speeds? Let hub stay put, forget about realignment.

More machinery manufacturers use the Worthington QD than any other hub and rim combination because it's easy to get on, easy to get off, yet always tight on the shaft!

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Caldwell TANKS AND TOWERS

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News About **MEN** (Continued)

& Sanders, Inc., New York, N. Y. **Joseph P. Sanders**, president, has acquired Mr. Hooker's interest and assumed the office of treasurer.

Robert A. Kettle has been named manager of the Little Falls, N. Y., division of National Automotive Fibers, Inc. He was previously cost control manager.

G. T. Klager, manager of the Hespeler, Ont., mill of Dominion Woolens & Worsteds Ltd. has been appointed a director of the company. **S. W. Haufschild**, secretary-treasurer, was also named a director.

W. A. Laney, formerly general overseer of weaving for Duplan Corp., Lincolnton, N. C., is now superintendent of Carolina Fine Fabrics, Inc., Hickory, N. C.

L. B. Lanford has become superintendent of Glendale Mills, Spartanburg, S. C.

L. L. Lively, general manager of Alabama Hosiery Mills, Inc., Decatur, Ala., has resigned.

A. D. Madge has retired as secretary and assistant treasurer of Pacolet Mfg. Co., Spartanburg, S. C., and has been succeeded by **N. O. Nielson.**

Earle Mauldin, Jr., has been named assistant secretary of Riegel Textile Corp., Ware Shoals, Va. Mr. Mauldin will continue as office manager.

J. Leo McCarty, director of industrial relations for Columbia Mills, Syracuse, N. Y., is leaving that company after a 21-year association. The office that he has filled for the last eight years is being discontinued.

John T. McGuire has become superintendent of National Worsted Mills, Inc., Jamestown, N. Y.

William R. McKelvy has joined the engineering department of Fulton Bag & Cotton Mills, Atlanta, Ga. He has been project engineer for Patchogue-Plymouth Mills, Hazlehurst, Ga., since 1946.

R. H. McMorrow has resigned as vice president in charge of quality control and production for Artcraft Hosiery Mills, Philadelphia, Pa., to become general manager of S. Goldberg & Co. **Dan Matison** has succeeded him at Artcraft.

Kenneth A. Meredith is chairman of the board of Herbert Mills, Inc., Marion, S. C., recently organized. **D. F. McMurry** and **M. H. Meister** are vice presidents; **Nathan Freed**, secretary; and **Edward Freed**, treasurer.

Allen L. Mills, Jr., has been elected president of Paola Cotton Mills, Inc., Statesville, N. C. He succeeds his uncle, **Lonnie N. Mills**, who has become secretary, treasurer, and general manager, succeeding the late **Allen L. Mills.** Mr. Mills, Jr., has been elected a director to fill his father's unexpired term.

Cecil Moore, formerly with Elmore Corp., Spindale, N. C., will buy yarns for Delta Thread Co., Nashville, Tenn.

R. DONALD HARVEY (left) and HOMER M. CARTER (right) have been elected to the board of Pepperell Mfg. Co., Boston, Mass. Mr. Harvey is general manager of the Lindale, Ga., Division and Mr. Carter is general manager of the Pepperell, Ala., Division.

This picture shows why
"Worthington Balanced Angle" means
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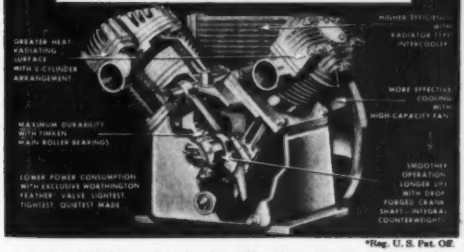
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Self-embedded rivets in the duck prevent sharp cutting edges. That's the kind of rivets you'll find in all Lane canvas baskets—not the splitting type that leave sharp edges to snag or mar delicate materials or scratch employees.

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Investigate Lane baskets, hampers and trucks today and see for yourself why Lane is the standard of quality.

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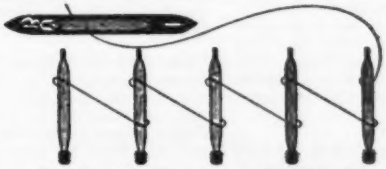

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For all types of yarns, for best loom efficiency and less seconds. New Zealand brown or gray o'possum—muskrat—sheepskin—in any form.

Strips of any width or length, or in whole skins, sheared or unsheared. Prompt Delivery.

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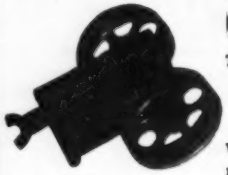

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CHARLOTTE, N. C.

News About **MEN** (Continued)

Charles W. Mulcahy, legal counsel for Borden Mills, Inc., Kingsport, Tenn., has been elected to the board of directors.

Paul Murphy, who has been with Jackson Mills, Wellford, S. C., since 1936, has been named overseer of weaving, replacing **E. L. Bolding**, now superintendent of another mill. **Jack Belcher**, former loom instructor, has been advanced to second hand in the weave room. **Pat Hawkins** has also been named a second hand in the weave room.

Frank Newton, assistant superintendent of Foundation Worsted Mills, Portland, Ore., has succeeded **Albert Urell**, who resigned after 20 years with the company.

E. P. Nichols has been appointed plant superintendent of Washington Mills Co., Fries, Va., succeeding **John W. McAlister, Jr.**, who has been named plant manager. Mr. McAlister has served as superintendent for two years. Mr. Nichols has been with the company since 1912, lately as assistant superintendent.

Richard J. Reynolds, who recently joined Cohn-Hall-Marx Co., a subsidiary of United Merchants & Manufacturers, Inc., is now located at the company's Louiseville, Quebec, plant as superintendent of printing.

W. A. Rhyne, general overseer of spinning, twisting, and winding for Flint Mill No. 1 of Burlington Mills, Gastonia, N. C., has resigned to accept the position of plant manager for Hadley-Peoples Cotton Mills, Siler City, N. C.

Benjamin F. Roeder has been appointed director of fabric research and development for Miron Mills, Inc., Bell Mills, Inc. and Wester Mills, Inc., all New York subsidiaries of the Bell Co., Worcester, Mass.

William C. Ross has been appointed general superintendent of the Mascoma Mills of American Woolen Co., Lebanon, N. H.

James N. Scott, production manager in the lightweight division of Utica Knitting Co., Utica, N. Y., has resigned to become production manager of Strauss Knitting Co., St. Paul, Minn.

Ernest Sewell, technical director of Magog Print Works of Dominion Textile Co., Montreal, Que., has resigned.

John D. Siewers, general manager of Washington Mills Co., formerly stationed at Fries, Va., has been transferred to the company's office in Winston-Salem, N. C., but will retain his previous duties.

Prymus E. Strickland has resigned as superintendent of Abney Mills, Anderson, S. C., after 18 years of service. He has been succeeded by **Talmadge Embler**, his assistant for several years.

Paul Sullivan has become chemist for Troy Blanket Mills, Troy, N. H.

Joseph L. Suprenant, former yarn superintendent of Arlington Mills, Lawrence, Mass., has accepted a position with Pachaug Mills, Inc., Norwich, Conn.

Benjamin Thomas, Jr., former plant manager of Textron, Inc., has become assistant to **Edward R. Hall**, president of Hoosac Mills Corp. Mr. Thomas will be located in Boston.

Robert Thomas has become overseer of weaving at Baxter Woolen Co., Somersworth, N. H., succeeding **M. A. Lacey**, who has gone with S. Stroock & Co., Newburgh, N. Y.

Ken Tucker has resigned as overseer of carding at Kenwood Mills, Inc., Cavendish, Vt. **Howard Wilcox** has succeeded him. **M. F. Littlefield** has become overseer of dyeing at Kenwood, succeeding **Walter Wood**, who has resigned.

Stan Wade has resigned as overseer of dyeing at A. D. Juilliard & Co., Inc., Atlantic Mills, Stottville, N. Y., and **William Demers** has succeeded him. Mr. Wade has become overseer of dyeing at Dorr Woolen Co., Guild, N. H.

C. N. Wallace, Jr., has been appointed manager of Stevens Manufacturing Research, Greenville, S. C., a division of J. P. Stevens & Co., Inc. Mr. Wallace succeeds **A. E. Wins-**

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AT YOUR FINGER TIPS, issue after issue, is one of your richest veins of job information – advertising. You might call it the "with what" type – which dovetails the "how" of the editorial pages. Easy to read, talking your language, geared specifically to the betterment of your business, this is the kind of practical data which may well help you do a job quicker, better – save your company money.

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The latest (1951) edition lists the 12 main types of synthetic fibers and reports their physical and chemical properties. Comparative tables on properties of cotton and wool are included. The chart also gives figures on synthetic-fiber consumption, lists all commercially available synthetic continuous-filament yarns and staples, and gives other important data.

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Principal and alternate step-by-step processes in handling continuous filament yarns from the case of yarn to the finished fabric (including tire cord) are shown.

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Manufacture of roll felts, sheet felts, and felt wheels is shown in step-by-step order.

COTTON-VARIETIES CHART — **25¢ each, 15¢ in lots of 20 or more**
A chart showing fiber properties and manufacturing performance of the eight varieties of cotton that make up about 80% of all cotton grown in the U. S. This chart, listing information on these varieties for the first time side-by-side, can save mills money in permitting selection of the best fiber for the end product.

SHRINKAGE TABLES — **25¢ each, 15¢ in lots of 20 or more**
These tables permit quick determination of ½ to 25% shrinkage, covering pieces from 50 to 100 yd.

ANNUAL REVIEW & FORECAST (Feb. '52). 20 pages. 25¢ each.

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SETTING A WORKLOAD (Oct. '51). 8 pages. 15¢ each, 10¢ in lots of 20 or more.

AMERICAN TEXTILE-MACHINERY EXHIBITION REPORT (July, '50). 36 pages. Free.

CENTRALIZED LUBRICATION OF TEXTILE MACHINERY (May, '49). 12 pages, 25¢ each, 15¢ in lots of 20 or more.

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NEPS . . . AND HOW TO CONTROL THEM (May, '52). 16 pages. 25¢ each, 15¢ in lots of 20 or more.

The following reprints are 10¢ each, 7¢ in quantities of 20 or more.
TEXTILE WORLD's Finishing Symbols (Jan., '49)
Yield Chart Gives Knitting Data (July, '49)
New Dye Technique Shows Maturity of Cotton (July, '47)
Let's Knot—and Do it the Right Way (June, '46)
Ramie—an Impartial Report (Dec., '43)

EDITOR
TEXTILE WORLD
330 West 42nd St.
New York 36, N. Y.

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Dye-resistant and boil-proof, permanent, inexpensive, quick and easy to use.

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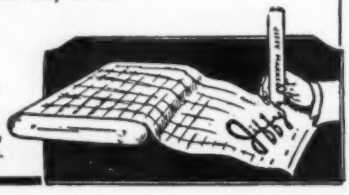

News About **MEN** (Continued)

low, who resigned to join Hartford Machine Screw Co.

John C. Whitesell, director of sales, secretary, and a member of the board of Robbins Knitting Co., Spruce Pine, N. C., recently resigned.

John Williams, night superintendent of Linn Mills Co., Landis, N. C., has resigned to accept a position with Burlington Mills Corp., Fayetteville, N. C.

Herbert Wilkinson has become superintendent at HoHo-Kus Bleachery, HoHoKus, N. J., succeeding **C. R. Lofgren.**

Samuel E. Wilson has succeeded **Donald Tourtellotte** as credit manager of J. L. Stifel & Sons, Inc., Wheeling, W. Va. Mr. Wilson was formerly with Bates Fabrics, Inc.

George L. Wood has become overseer of finishing at Dorr Woolen Co., Guild, N. H., succeeding **Thomas D. Bruce.**

N. P. Wood has been named secretary of Spool Cotton Co., New York, N. Y., to succeed **John Bell**, retired.

OBITUARY

Nathaniel H. Barrows, Sr., 75, former president of the Wyandotte Worsted Co., Waterville, Me.

William C. Bates, 68, senior vice president of Cannon Mills, Inc., New York, N. Y.

Ernest Booth, 66, founder and owner of Booth Knitting Mills, Philadelphia, Pa.

Herbert Gladstone Coe, 82, retired superintendent of Brookside Mills, Knoxville, Tenn.

Edmund J. Corriveau, 51, a textile designer at Scott & Williams, Inc., Laconia, N. H.

D. R. Dickson, 62, vice president of McLeod Leather Belting Co. and general manager of the Greenville Textile Supply Co., Greenville, S. C.

Emil Domke, 62, president of C. S. T. Knitting Mills, Marlton, N. J.

Benjamin Elsas, 82, former president and board chairman of Fulton Bag & Cotton Mills, Atlanta, Ga.

Lt. Col. William B. Evans, 77, owner and operator of St. Andrews Woolen Mills Ltd., St. Andrews East, Que.

Dr. Edward W. France, 93, co-founder and the first director of the Philadelphia Textile Institute, Philadelphia, Pa.

William Greeley, 54, vice president of F. C. Huyck & Sons, Kenwood Mills, Rensselaer, N. Y.

Hazel P. Hardin, 58, vice president and general sales manager of Triangle Hoisery Co., High Point, N. C.

Charles A. Haynes, 59, superintendent of the Harris Mill of Interlaken Mills, West Warwick, R. I.

Joseph Hickory, 63, chief engineer at the Wuskanut Worcester Corp., Farnumeville, Mass.

George I. Putnam, former assistant manager of Calco Chemical Div., American Cyanamid Co., Bound Brook, N. J., and a former contributor to TEXTILE WORLD.

Thomas Kirkpatrick Rea, 60, foreman for Cocker Machine & Foundry Co., Gastonia, N. C.

Harry E. Schoenhut, 62, president of Oscar Nebel Hosiery Co., Inc., Staunton, Va.

William Binns Smith, 67, co-founder, president, and treasurer of James Smith & Son, Inc., Worcester, Mass.

Ralph E. Thompson, the chairman of the board of Scott & Williams, Inc., Laconia, N. H.

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It's iron and steel scrap.

Are you surprised to learn that scrap piles furnish just as much steel mill melting stock as iron mines do?

It's a fact. 50% of the melt is iron and steel scrap . . . and some of this scrap is wasting away in *your* plant.

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Responsible for financial results of dyeing, finishing & packaging operations in ribbon tape and webbing plant. Must have technical initiative as well as good business sense & managerial ability.

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PW-5718, Textile World
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2—Eppenbach Homo Mixers, 1 hp.
1—Open Print Washer, 3 compts.
1—V.V. Net Dryer, 30' x 55".
1—Van Vlaanderan Tenter Frames, 60' x 54", 50' x 60", 50' x 50", and 40' x 60", enclosed gears and Reeves.
1—V.V. Print Padder, 3 rolls, 50" wide.
1—Suction Extractor, 60" wide, L5 Nash Hytor Pump & 25 hp motor.
4—Van Vlaanderan Tenter Frames, 60' x 60", 50' x 60", 50' x 50", 40' x 60", enclosed gears and Reeves.
1—Morrison Jacketed Palmer Quetsch Unit, 68" x 60", with drive.
1—Leyland Scutcher, 50", w/motor.
2—Nat'l Loop Dryers, 45' long x 89" wide.
1—V.V. Decatizer, 54" wide, w/blanket.
4—Inspection Tables, 50" wide.
12—Wooden Dye Becks, 1-20', 1-13, 1-12', 5-8', 2-6', 2-4' wide.
2—V.V. Silk Calenders, 3 rolls, 50" wide
23—Textile Copper Dry Cans, 60" x 23" dia. Reeves drive and motor.
1—E & H Flat Folder, 50" wide.
4—V.V. Tubers, 60" wide w/motors.
1—Stainless Steel Rope Washer, 54' long x 14' wide, 58 sections, 30" deep, high speed, 1948.

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1—Narrow Fabrics Dry Box, M.D.
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1—3-roll V. V. Calenders, M.D.
1—Set 8 Copper Dry Cans 84", M.D.
1—Set 15 Dry Cans 72"—6-S.S.—9-Copper, M.D.
1—6' Dye Beck, S.S. Box & Reel, M.D.
1—48" Extractor S.S. Basket, side motor.
4—60" all S.S. Dye Jiggs, enclosed gears, Ind. M.D.
2—60" Jiggs, S.S. Lined, M.D.
1—76" Beamer, with enclosed B. B. Reeves, M.D. Reverse Switch.
1—50" Padder, 2-roll $400.00.
2—50" Expanders.
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1 BRUSH & SANDER, 4 Roll, 60"
2 CALENDERS, 3 Roll, 100 Ton, 60"-70"
2 CHINCHILLAS, 50", movable Platens
1 KENI-DECATURE, 72", Nash Pump, Mtrs.
1 DOUBLER, 66", Springfield Type
35 DRY CANS, 60", Steel, Vertical Stacks
1 DRYER, LOOP, Revolving Stick, 54"
1 DRYER, PACKAGE, 24 Trays, 2400 lbs.
1 DRYER, SKEIN, Continuous 53' long
1 DRYER, RAW STOCK, 32' long, Rotary Feed
7 DYE BECKS, Silk Type 3'---6'---8'
1 DYE BECK, Wool Type, 6' S.S. lined
1 PACKAGE DYEING, S.S. spdls., 125 lb.
1 PACKAGE DYEING, S.S., 400 lb.
1 SKEIN DYEING 200 lb., Pease Pulsator Type
1 EXTRACTOR 45", Vertical Motor V-Belt Drive
1 FOLDER 50", Counter 1 yd. Folds
2 CEILING FOLDERS 90", Counter, Adjustable
1 FULLING MILL, S.S. lined, Rubber Lag Rolls
1 INSPECTION Unit 96", F.&R. Troadles, Counter
1 JIGG, S.S., 80" S.S.
9 JIGGS, S.S. 50", S.S. Enclosures
1 KIER PILER, Portable Type
1 MANGLE, 2 Roll 54" Wood Tank & Folder
2 MIXING KETTLES, 28" x 22", Pumps & Coils
2 NAPPERS, Knit Goods, 20 Roll, 60"
3 NAPPERS, Double Acting, 18 Roll, 90", 24 Roll 80"---86"
1 NAPPER, Felter, 22 Roll 80"
4 NAPPERS, Single Acting, 20 Roll, 90" S.D.
3 PADDERS, 50"---54"---60", 2 Roll
3 PERCHES, 56"---72"---82", with Cloaks
1 PALMER-TENTER-QUETCH, 60" with S.S. Dry Cans
1 CLOTH PRESS, Rotary, 60" Double Bed
1 PRINT MACHINE 44", 7 Color, Dryer, etc.
1 PRINT MACHINE 50", 3 Color
3 QUETCHES, 2-3 Roll Units 50"---45"---68"
1 WEIGHTOGRAPH SCALE, Dial Type, 1000 lbs.
1 SCUTCHER, 90", Vacuum Sist, Nash #4 Pump, Meters, etc.
1 SEWING MACHINE, Rotary Stand, Merrow 66-D3B
1 SHEAR, 4 Blade, Auto., S.D., 60"
1 SHEAR, Flat Blade, 60", Double
2 SHEARS, Flat Blade, 60"-66", Single
2 SHEARS, Wool Type, 66"-, Double
2 SHEARS, Model A, 66"-, Double
1 SHEARING-BRUSHING-STEAMING RANGE, 66"-
1 SLASHER, 5 Drum, S.D., 52"
2 SQUEEZE SETS, 3 Roll, 60", S.S. & Rubber Rolls, 10" Dia.
3 SQUEEZE SETS, Rubber Rolls, 18" x 18", Paraplain Polyvon
1 SHRINKER, 66" S.S. Cooling & Steaming Plate
1 TACKER, 36", with Sewing Head
3 TEASEL GIGS, Single Cyl., 62"
1 TENTER FRAME, S.S. Inserts, D.S. Head Ends, 80" x 52"
3 WASHERS, S.S. 11, Rope Type

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50 M BOBBINS, 8-½", Auto., 3 ring
50 M TWISTER BOBBINS, 6" Overall
4 BALLING Units, 16 spdls. each, collapsible
1 WOOL CARD, Iron, Single Cylinder 60" x 60"
1 WOOL CARD, Iron, 48" x 60" Dia., Double Cylinder
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2 TAPE CONDENSERS, 4 Bank, 60", 96 End
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2 DRAW BOXES, 28-32 spdls. 12 x 6
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5 TWISTERS, 6" Ga., 184 spdls. ea.
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1 WINDER, CONE, Model #101, 100 spdls. 9" traverse
1 WINDER, QUILL, Model K, 30 spdls., 10" traverse
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1—Burlington S.S. Boil-Off Mch. Yr. 1951
1—W & J Padder 2-Rubber Roll 64 x 18 Yr 1951
1—Tenter Frame Unit Includes Stack 110" Dry Cans, Opening, 60" Tenter with W & J Clips, Dosatch 40" Heavies with Gas-Burners Etc. All Rebuilt or new in 1951.
1—Rodney Hunt S.S. 8-comp 10' Slack Loop Washers 1941.
1—R-H ditto Tint & Starch Mch. 1941
1—Infra-Red Drying Unit for Table Cloths. 1948
1—Cocker High Speed Warper, 120" beam, Reeves Control. 1943
1—Cocker 1280 Live End Magazine Creel. Elec Stop Motion
1—Stack 4—Tiered Dry Cans 23 x 72.

MISCELLANEOUS
1—Westinghouse 100 KW Ignition Rectifier Unit 220-440/60/3 to 230V D.C. 1948
3—Fairbanks 1000 x 1-Lb Dial Dormant Floor Scales 1947
75—Fibre 4-Wheel Box Trucks 40 x 16 x 23
12—Dreadnaught 4-Wheel Box Trucks 42 x 24 x 24
1—Barrett Cravens 500# Portable Elec Stacker 1944
1—Finnell 24" Floor Scrubbing Unit

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1—72" Parks & Woolson Decatizer, Pump & Motor.
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1—Hinnekens, 60" Variable Speed Examining & Tubing Machine.
1—Elliott & Hall 54" and 60" Flat Folders.
2—W.J. Tenter Frames, 30" x 54".
1—W.J. Tenter Frame, 30" x 90".
1—3 roll silk or rayon Calender, M.D.
1—42" Self Balancing Extractor, M.D.
2—150 gal. Jacketed Kettles with agitators.
1—Set of 21-72" x 23" Dry Cans Horizontally.
1—72" Hydraulic Padder, M.D.
1—Set of 9—30" x 60" Heavy Steel Dry Cans.
1—50" V. V. Button Breaker.
1—Johnson 7 Can Slasher
1—44" Van Vleanderen motor driven Tuber,
1—40" Verdain 40 ton Hydraulic Calender.
2—40" motor driven Beamers.
4—Herman measuring & inspecting machines, tube to tube.
1—60" Measuring, Inspecting & Tubing Machine, tube to tube, new, variable speed, forward, neutral & reverse.
30-60 gallon copper steam jacketed Kettles.
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1—Sterling 7½ H. P. Vari-drive.
1—Reeves 7½ H. P. Vari-drive.
About 5,000 S. S. high speed V. V. Clips.
Agitators of various sizes.
Motors of various sizes.
New & Used Electric Hoists.

8—60" Verdiun, Stainless Steel, Motor Driven Jiggs
2-3 ft. 2-8' 1-10' 1-14' Stainless Steel Lined Dye Boxes
New Copper Rollers 16" x 60" wide, W Bore

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1—Sargent 42" Picker Feed
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4—D. & F. 48" Plain Mixing Pickers
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1—D. & F. all iron Cone Duster
1—Schofield 48" automatic Duster (box)
1—Woonsocket 36' x 36" ceiling condenser & blower
2—18" x 18" P. & S. Ceiling Condensers
1—"Parkhurst" 48" Burr Picker with Feed
1—Sargent 36" Duplex Burr Picker
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1—Card Floor Grinder 60"
2—40" Stock Blowers, B.B.
2—Opening Pickers, 40"
2—Gerry 30" Lumpers

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4—D. & F. or Altemus Warpers—rebuilt to order—82"—120". Pin or Pinless
1—Globe Ball Warper & Creels
5—Draper 54" Mod. G Warpers
22—Tonner, C. & K., Plush Looms
12—C. & K. W-1 78", 4x1 Looms
4—C. & K. 92" 4x1 automatic Looms
4—C. & K. 82" 4x1 automatic Looms
36—C. & K. 82" (4x4) Box Looms
2—L. & G. Chenile Cutters

WINDING

3—Foster Mod. 75 Cone Winders (like new)
1—Foster, Mod. 101 sp. Cone Winder
4—Foster Mod. 12, Skein to Cone or Tube Winders
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10—Lindsay Hyde Adjustable Skein Reels
1—Whitin Quiller 2½" Gauge (long chain)
1—Lazenby 15 sp. Cop Winder
3—Sargent 16 sp. Balling Machine, 1948

FINISHING

1—Gessner Mod. 20 Press, 1950
1—Hunter 28B Fulling Mill, 1949
1—Gessner 72"x56" Semi-Decater, 1943
1—Hunter Mod. G. Squeeze Rolls, 78"
2—Birch Bros. & Tack. Mach. (92")
1—Birch 72" Scutcher & Vacuum
1—Roy 86" Napper Grinder
1—P. & W.. 66" 4 cyl. Brush & Sander
2—Teasle Gig's, double cylinder (60")
1—Yorkshire Crab 72"—3 bowl
1—S/S Lined 60" Wetting-out Tank with squeeze rolls (Pneumatic Pressure)
2—P. & W. 66" Mod. A. Double Shears
2—Voelker 85½" D. B. Presses
1—Set Dry Cans (4) 27" Copper
6—Dry Cans Copper, 70" x 36"
1—P. & W. 72" Steam Lustering Machine
1—Cloth Measuring & Rolling Machine 80"
1—P. & S. Single Truck Skein Dryer

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1—Proctor-Schwartz 1950 Camel Back Lapper.
1—Holyoke 2-steel roll 50" Calendar.
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1—Sargent Wool & Hair Dryer, with Feed.
1—W&J 40' Tenter Frame, 72" S.S. Clips.
2—Haskell-Draws 12 Sp. Tubing Twisters.
1—Laboratory Printer, 18", 2 Dry. Cans.

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3—Three Ton Allen Kiers with pumps and heaters
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10' Bleach House Tight Washers
New Infra Red Singers, from 50" to 140"
1—20" x 50" 1949 Butterworth Short Tenter
1—90" x 60" Butterworth Swing Tenter Frame
2—66" and 65" 2 roll heavy duty Embossing Calenders
2—50" Silk Yard Folders
1—60" Beamer
1—60" Greystone Hydraulic Batcher, also single and two roll Batchers 50" and 60"
1—20 Ton 72" Hunter Hydraulic 2 roll Padder
2—10 Ton 65" Morrison Hydraulic Padders
Also, 50" to 120" 2 and 3 roll Padders
Also, A.C. and D.C. Motors from ¼ H.P. to 100 H.P. and Generators
Copper Dry Cans with vertical or horizontal stands, from 40" to 132", from single Can to any amount in sets

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12—Stainless Steel 48" Dye Jigs
7—Stainless Steel 80" Dye Jigs
1—Morrison 50" Silk Calender
54—Copper Dry Cans 50" Face
1—70" Mercerizing Tenter
4—Morrison 50" Williams Units
1—Van Vlaanderen 52" Decator
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Round Table

(*Continued from page 187*)

ing the war was making 600,000 lb. of top per week, is now in the process of liquidation. That is not the sole reason for the closing of that mill, but it is one of the contributing causes. In addition there are several smaller combing mills that at the moment are in the process of liquidation.

W. R. BULLARD

Francis Willey & Co.
Boston, Mass.

[Are we correct in inferring that the competition of increased imports threatens to cripple the capacity of your part of the over-all textile industry to perform a service essential to the national defense? We would particularly appreciate your judgment on that point, which seems to us to have a key bearing on the general problem with which we are wrestling.—Editor]

Dear Editor:

I have your recent letter, and you are entirely correct in assuming that increased imports of wool tops that are coming into this country through bounties and subsidies are threatening to cripple the capacity of our industry to perform the service essential to the national defense. This is, as I said in my first letter, a highly important matter.

When one can buy wool tops, let's say from Uruguay, that have been subsidized to a point where the manufactured tops can be brought in here to sell at the same price in bond as the wool from which they are made, and when it costs us approximately 48¢ a pound to make the tops in our own combing plants, it is perfectly obvious that the mills are going to buy the imported tops. Our combing mills have been running at a very low rate this year, and one of the reasons is that such large weights of tops are being imported.

In many textile centers workers are walking the streets; and it is quite obvious that if this large importation continues, combing mills will be forced into liquidation. As we have said, the largest combing mill, which produced during the war 600,000 lb. of top per week, has now been liquidated.

During the last war we ran our own combing mill seven days per week. Combing was a bottleneck in the industry; and in order to keep the Army, Navy, Marine Corps, and Air Force supplied, the War Manpower Commission placed wool combing on the critical list and gave the highest priorities to its manpower needs, second only to the atom bomb.

Next to food, clothing is one of the most essential items in the economy. During the war the Army sent trained personnel teams in uniform to every combing mill, and they stayed at these mills in an effort to get more labor and keep the labor that was employed constantly on the job.

If the importation of these tops forces any further combing liquidations, just who is going to take care of us when the next war comes?

Boston, Mass. W. R. BULLARD

"AID OR TRADE?"

Dear Editor:

It was with extreme interest that I read the editorial in the August issue of

30 #50 UNIVERSAL CONERS

GEAR GAIN . . . L DRIVE . . . ST. STEEL Split Em. Rolls . . . ROLLER BAIL PINEAPPLES

Excellent Condition, Direct from Mill Floor. Machines set up for Nylon Work . . . Motorized.

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At A Fraction of Original Cost ! ! ! !

½ lb. Package, Bobbin Equip. with Machines. 200 Spindles per Machine—Suitable for Nylon Work.

10 Atwood Utility Twisters

240 Spindles — 12 to 14 ozs. Individually motorized. Excellent for Nylon work.

92 Draper 64" XD **LOOMS** LIKE NEW!

1948 Model — Motorized.

8- STANDARD 15' 8" FLETCHER NARROW FAB. **LOOMS**

Ind. Motors. Cam Motion Set up for 42" Beams

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6 or 8 Prince Smith Magnum R. Spinn. Frames
2M Wor. Cap Spinn. Spindles 18" long, 1-7/16" dia.

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400M Filling A. L. Bobbins 8½", Wool
2M Slubber bobbins S. L. 12" x 6"
148 Ratchet Friction Heads 13" Diam.
75M Flat Steel Heddles 14"
250 Change Gears (Narrow Fabric Looms)
1M Fiber Roving Cans 12 x 36" Seamless
2500 Fiber Roving Cans 12 x 36" Seamed
15 Magazines C. K. 8½" bobbins
Large lot C&K & Draper Loom Parts
3M Bars Metal Dolly Chain 16, 20, 28H
50M Flange Rings, 1⅛ to 1⅞ Range, Vertical 1¼ to 2¾ with plate and e.l. holders

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1—40 Spindle Foster #12, skein in tube
1—40 Spindle Atwood 5B-Vertical motor
2—16 Spindle Sargeant Balling Machines—motorized

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168	40	CP	82	6–6 x 4	IR
252	35	AM	187	10 x 6	CP
284	15	IR	193	Rotary	Fuller
311	40	IR	265	12 x 6	CP
740	40	IR	360	18 x 7	IR
800	55	IR	800	18 x 9	WO
931	55	AM	1134	22 x 9	Pa
1084	35	Pa	1633	24 x 11	CP
1084	35	IR	1987	26 x 13	WO
1292	40	AM			
1452	70	Pa			
1987	12	WO			

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Tube + 3" 30° Cone Attachments, Anti-Wear Tensions, Motorized

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20 ATWOOD 110 UPTWISTERS 5" x 6" GAUGE 1 LB. CAPACITY SPOOLING AVAILABLE

100 M. FIBRE HEAD SPOOLS 4-9/16"T x 3"H x 1½" Bbl.

250 M. FIBRE HEAD SPOOLS 3½"T x 3H" x 1⅛" Bbl.

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1947-1951 EQUIPMENT

46" Draper "XD", Dobby
Hermas 58" Shearer,
Warp Knotters, "LS"
Terrell Stripper, Conveyor
H & W Conditioner
Johnson 3-arm Soaking
Reiner 54¼" Warper, Creel

Cocker 60" Warper, Creel
Bahnson Humidification
60" C&K 4x4 Looms, with or without 1304-hook Halton Jacquards and Harnesses
56" S-3 2x1 Auto. Shuttle Change
44" XK, Dobby and Cam Looms
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129 Sections of PERFORATED PLATE CONVEYOR for Proctor & Schwartz Dryer—7'3" wide x 8" long—½" holes—3/16" stag.—20 ga.—304 stainless steel.

3—TEXTILE PLAITERS—18 to 55 ft/min—with two ¾ HP motors—complete with Reeves base—plaiters designed for 7'3" conveyor belt dryer.

3—NATIONAL #76 KARBATE HEAT EXCHANGERS—never been used.

2—IMPROVED WORLD LABELERS — have handled bottles ranging from 2 oz. to 20 oz.—like new condition.

1—STAINLESS STEEL BLEACHING RANGE—Wolsner-Rapp—6'—including J-Box-Saturator-rope type Plaiter—and heavy duty Squeezer—never been used.

Subject to Prior Sale

HALL EQUIPMENT COMPANY
7374 Reading Road, Cincinnati 37, Ohio
REdwood 2057

FOR SALE
84" BS Cotton King 4x1 aut. box looms
66" BS C. & K. 2x1 aut. box looms
presently operating and
2 #90 Universal quillers
(with bunchbuilders)
FS-5778, Textile World
330 W. 42nd St., New York 36, N. Y.

TRADE WITH BAUER
BUY - SELL - TRADE
your
COMPRESSOR VACUUM PUMP STEAM BOOSTER
L.W.BAUER
245 ESSEX AVE BLOOMFIELD N.J.

FOR SALE
SMALL, COMPLETE PLANT
SAUER LOOMS
21 Heads—Reasonable price
FS-5507, Textile World
330 W. 42 St., New York 36, N. Y.

FOR SALE
CONVEYORS
40 ft. by 44 inches and 50 ft. by 44 inches—36 inches high with 3 ply cotton Neoprene belting. Complete with Unistrut Frame. 1 Horsepower Motor 110 Volts. Vickers hydraulic reducer also variable speeds, reversible. Can be seen in operation.
FS-5721, Textile World
330 W. 42 St., New York 36, N. Y.

FOR SALE
One (1) Whitin Schweiter Automatic Quiller, 15 Spindle.
8 yd 96" Warper with creel.
18—C & K 4x1 Automatic Looms—76" wide.
FS-5768, Textile World
330 W. 42 St., New York 36, N. Y.

Need STAINLESS STEEL?
CALL

"Eastern"
FIRST
• SHEETS • PLATES
• BARS • TUBING
• COILS
For Immediate Delivery From Our Warehouse Facilities.
Eastern METALS CORP.
70 Lockwood St., Newark 5, N.J.

TEXTILE WORLD entitled "Aid or Trade? A Crisis Ahead." Congratulations on such broad thinking!

You have gotten down to the crux of our foreign policy. Our country has talked a great deal about helping people in foreign lands. We are spending billions of our worker's dollars trying to put Europe and Asia on their feet. It would be a far better alternative for our American business and industry to have to meet some additional competition from abroad, and perhaps thereby cause a few difficult spots in our economy, than it is to be confiscating our wage earners' and our stockholders' dollars and then giving them (the foreign lands) the money as a gift. It is not only bad economically, but it also reflects on the dignity and pride of people who are trying to recover in a war-torn economy.

America holds its tremendous production ability and its wealth up to the rest of the world as the result of keen competition.

Why should we be afraid of a little more competition? Maybe it will be good for us in the long run. We also pride ourselves on being logical and economically sensible when it comes to buying goods and services at the right price. We get our money's worth. According to this thesis, we ought to stop paying a higher price for many articles that can be purchased from abroad at a lower price and in equal or better quality.

Furthermore, we are not as rich as we used to be—having exploited our resources as a result of two world wars. Perhaps we are not in as favorable a position in lots of items as we want to be. We are going into the world's markets for oil, iron ore, tin, rubber, and many other items. We are not going to help our foreign reputation by adopting a smug attitude in one place and then asking for cooperation in another. A problem may well be different, as one might choose to argue, about the relative difference between buying machinery from Switzerland and iron ore from South America or Canada, but nevertheless the important point is that all countries are watching America's behavior. And the best way to sell the democratic idea—Atlantic Charter, Point Four, Voice of America, etc.—is for us to meet the rest of the world at least half way and end our fear of competition.

We are watching an economic upheaval in cotton and woolen textiles in New England. Just plain economic facts are forcing a logical economic development. Well, let's look at the world-trade situation and talk sense instead of letting tariff barriers create false economic conditions and bad foreign relations.

There is, however, another and very important aspect of this world-trade question. We are spending billions for defense. Most of our economic troubles today are the result of inflation—caused by increased money supply and less goods. The Atomic Energy Commission's huge project on the borders of South Carolina and Georgia is in competition with our textile mills. People there ought to be making cloth, not hydrogen bombs. Who is the cause of all this? Russia, of course. Every time we refuse to lower trade barriers and buy from abroad we are going to

force many countries to look elsewhere for a market. Today Russia is looking for markets and would gladly buy up some of Europe's goods. This will increase Russia's income, provide markets to absorb expanded production, add to her economic strength, and put Russia in a better position than ever to force communism on the world!

When I get ready to buy a bicycle for my son, I'm going to buy an English bicycle, because it is a better buy—lower price and better quality than anything I could buy in America.

(Name withheld by request)

Pointers for Supervisors

(*Continued from page 169*)

experience. We can re-evaluate our experience and perhaps find out that it really teaches us to do something different. Once we have gained genuine insight into what experience really teaches, we are then in a position to change our attitudes and behavior. The foreman can't get this insight from a lecturer. Nor can he get it from the self-analysis check-lists that have been much in vogue.

Our training technique must, therefore, provide a means by which foremen can re-evaluate their experience. One technique that shows promise in this regard is the conference technique. We do not mean a conference that is tightly ruled by a leader or a conference that is supposed to arrive at definite answers. We refer to a conference of supervisors under the loose direction of a conference leader who does not profess to know the answers or presume to give them.

The supervisors freely discuss actual human relations cases of a familiar type in these conferences. They exchange information on their own attitudes, points of view, and actions. Against this background of what his peers think and do and his own expressions on the subject, the individual foreman can re-evaluate his own experience. He is in a position, then, to gain insight into the bases for his own attitudes and actions. The way is cleared for changes in attitude and resultant changes in behavior on the job.

To sum up, we haven't had very much success with foreman training. The major problem has been to secure the use of "learned" principles of human relations in the actual supervisory job. This is the major problem because attitudes, habits, and temperament may have to change before supervisory behavior changes. A type of conference training gives us some hope of obtaining such changes and resultant changes in behavior on the job.

LIQUIDATING—For Immediate Removal

PARTIAL LISTING

1—110" Stainless Steel Open Washer, 6 Sect. Ind. Motor Driven Nip Rolls, Vari Drive, S.S. Idler Rolls, 3 Scutchers.

1—Set (30) 108" Copper Dry Cans, Ball Bearing Johnson Joints, Traps, Syph. Plaiter, Etc.

2—Copper Jacketed Mixing Kettles, 150 & 200 Gal. Capacity, Motor Driven Agitators.

1—R. B. & F. 2 Color Print Machine, 45" Face.

2—Butterworth Pin Tenters, 80'x108", Motors, Guiders, Etc.

1—Butterworth Tenter, 90'x60", S.S. Clips, Motor.

1—V.V. 54" Silk Embosser, 2 Roll, Motor.

1—P. & W. 50" Semi Decator, Blanket, Pump, Motors.

3—4' - 12' Dye Becks, Stainless, Motors & Reducers.

8—50" - 72" Dye Jiggs, Stainless, Enclosed Gears, Motors.

2—Finishing Calenders, 54" & 60", Ball Bearing Rolls, Motors.

INDUSTRIAL PRODUCTS OF AMERICA

140 Market Street IPA Paterson, New Jersey

TELEPHONES: SHerwood 2-6614—5—6

FOR SALE

30—Tinned steel dry cans 23" dia x 120" face bucket type gear driven friction bearings upright or horizontal frames.
20—Copper dry cans 23" dia x 44" face bucket type gear driven friction bearings upright or horizontal frames.
15—Copper dry cans 23" dia x 100" face steel heads gear driven.
5—7' slashers 50" face bucket type.
5—5' slashers 60" face bucket type.
2—5' slashers 30" face bucket type.

We can supply one dry can or as many as your needs may be. We fabricate new copper or stainless steel dry cans any width. Dry can machines built to your specifications.

Write • pause • wire

296 Lincoln Ave.

EASTERN TEXTILE CO.

New and Used Finishing Machinery Specializing in Dry Can Machinery

Tel. 33228

Fall River, Mass.

EXCELLENT FINISHING MACHINERY FOR SALE AT LOW PRICES

1—90'x60" wide Textile Tenter & Chain.
10—Johnson & Bassett Pantographs, complete with diamonds.
1—44" 2-Roll Padder with stainless steel pan.
1—41" Starch Mangle 20" Rubber 10" Brass complete Folder Boil Box and Starch Box.
1—65" Palmer machine complete with motor, gear box, blanket, etc.
1—54" B. B. Werner Quetch SS Pan Compensator & SS Cylinder 30" dia. x 50" Syphon.
1—72", 57" Knurled steel drum Batcher.
1—50" Schreiner Calender.
1—72" Hydraulic Smooth Calender extra steel roll for Schreiner Work.

TEL. UNION 1-0050

TEXTILE FINISHERS EQUIPMENT

144 WEST RIVER ST.
PROVIDENCE, R. I.

FOR SALE

1 D&F 60x60 Card including Peralta, Whitin Intermediate, Whitin Tape Condenser, and Closed Bearings.
1 48" Bramwell Feed
1 48" Breast
1 46x60" Cylinder
2 48" x 36" Doffers
10,000 New Twister Bobbins for 3" & 3½" Ring

ADVANCED TEXTILE CO.
P. O. Box 661 Providence, R. I.

For Sale—1200 gross yards BROWN COTTON FRINGE

in original packages. Measure styles 60761 and 62462 also Dobrie style 14270. First quality. Will sell for one-third cost.

LACHMAN & SONS, INC.
3419-35 Richmond St. Phila. 34, Pa.

S&K **Where your $$$$ buy MORE**

SILK WEAVING C & K AUTO, 2 x 1 60 LOOMS

COMPLETE PLANTS—PLASTIC SEAT COVERS C & K AUTO. LOOMS 82"

300 Auto Drapers 43" to 76" cloth
16 C & K Auto Bob Changers 2 x 1—72" R.S.
140 S-3 C & K 52" R.S. shuttle changers
12 C & K 4 x 4—54" R.S.
40 C & K Woolen looms 72" to 110" R.S.
1000 Electro Rods 66" to 133"

1 Paterson Examiner, 72" wide
1 72" Perk Woolson Decater
1 Set 18 Dry Cans 48" face; 5 stainless steel, 13 iron tinned with reeves
8 Dye Boxes S.S. lined 8'—10'—12'
1 Jostrom fabric conditioner 64"
1 19 can Butterworth dryer 72"
4 Werner-Jiggs 72" S.S.
2 New 66" SS jiggs
4 Three (3) Roll Padders 45"
20 50" Dry Cans
3 Johnson Slashers 7 Can and 3 Can—66" and 5 Can
1 Set 17 Can Butterworth 132" S.S. B.B. Motor and Reeves Drive
1 72" Greige Washer with Squeeze Rolls 24' long
5 Atwood 5B Twisters
9 Atwood Single Deck Utility Spinners
8 Sipp Warpers and Winders
20 #90 Universals
4 Oswald-Grundy 46—Spindle Cop Winders
5 Foster-Coners 75A

Sipp Hyspeed Warper

DYEING MACHINERY

1 Cottage Steamer 24' x 10'
1 2 Roll 60" Quetch
1 S.S. open width washer with squeeze rolls
1 Ager 60" 48 rolls 20' long
1 48" self balancing Extractor
1 Set of 8—68" Copper Cans
1 Set of 5—66" Copper Cans 30" diam.
1 New 80½" Beamer
14 S.S. Cans 48"
1 80" wide Pin Tenter Frame 20'
1 40 Hinnikens 60" frame with gas Burners, reeves and motor

STAVE & KESSLER

106 KEARNEY ST. P. O. Box 1611 Paterson, N. J.

Phone ARmory 4-7486

WANTED

WANTED

TEXTILE MACHINERY

including Carding Machines, Spinners, Automatic Looms, Slashers, S/S Dyers, Extractors, Calenders, Clip & Pin Tenters, Dry Cans, Multi-color Presses.

Will consider operating or idle plant.

P. O. Box 1351

Church Street Sta., New York 8, N. Y.

DYESTUFFS

Will buy your surplus and obsolete dyes and chemicals for cash.

NEW ENGLAND PRODUCTS CO.

91 Oliver St. Boston, Mass.

Established 1918

—ALWAYS—BUYING—

Cotton Twine & Jute Twine
Obsolete, Rejects, Odd Lots

Jack Salwen

Rm. 221 1133 Broadway CH-3-3600 N. Y. 10, N. Y.

TACHOMETER BARGAIN

Jaeger Model 4050A 43-A1 43-A3

★ Ideally suited for testing the speeds of motors, particularly of fractional horse power, generators, turbines, centrifugals, fans, etc.
★ Very small Torque — requires practically no power to drive.
★ Unequalled Readability 2" Open face dial—each division on large dial equals 1 RPM; each division on small dial equals 100 RPM. 0 to 1000 RPM.
★ Greatest Accuracy—meets Navy specifications—guaranteed to be within ½ of 1%.
★ Results of test reading remain on dial until next test taken.
★ Push button for automatic resetting.

Will give accurately within a few seconds, by direct reading the R.P.M. of shafts. Each unit comes complete in a velvet lined carrying case 5"x3½"x 1½". Net List Price $70.00—Surplus—Guaranteed.

Your cost **$22.50**

DEPT. I-A

F.O.B. Chicago, Ill.

CORNELL SALES

5311 CORNELL CHICAGO 15, ILL.

WANTED

FLAX TOW FINISHER CARD

Preferably with drawing head.

W-5402, Textile World
330 W. 42 St., New York 36, N. Y.

LOOMS WANTED

2 and up to 4 used but in excellent working condition looms for the manufacture of nylon stockings 60 gauge 24 to 28 or 30 sections with automatic welt turner.

W-5495, Textile World
330 W. 42 St., New York 36, N. Y.

FOR IMMEDIATE SALE

1—Davis & Furber Eight Coil Pipe Dressing Machine, practically new.

1—Warp Compressing Multiple Spooler with electric stop motion, 6 spools.

1—Davis & Furber Warp Reel, 92" with pinless attachments.

1—60" Saco-Lowell Slasher, complete with exhaust fan. Extra Equipment. Den Warper, Size Kettle and etc.

JOHN WALTHER FABRICS, Inc.

Ontario & D. Sts. Phila. 34, Pa.

FOR SALE

16 Spinning Frame

SLUB ATTACHMENTS and GEARS

DIONNE SPINNING MILLS CO.

St. George, Beauce, Que. Canada

WANTED

RUBBER COVERED ROLL

Which can be turned down to dimensions as follows: Diameter 5 ¾" to 7" length of roll surface 45" shaft extension 12" minimum each end and 15/16" minimum diameter length over all minimum 69". Write stating location and price.

W-5694, Textile World
330 W. 42 St., New York 36, N. Y.

BARGAIN!
If You Can Use Them

300 TRICOT WARP BEAM SPOOLS

Compressed Steel, 13¾" Diameter x 19¾" overall length. Distance between heads 18⅛". Bore 2⅝" in 4" diameter.
Perfect Condition Sacrifice

FS-5736, Textile World
330 W. 42nd St., New York 36, N. Y.

WANTED:

MERCERIZER 50"-60"

Complete with Clip Frame, Etc.

W-5801, Textile World
330 W. 42 St., New York 36, N. Y.

TYING MACHINE

BARBER-COLMAN MODEL LC #577 Warp Tying Machine Complete — used four months.

FS-5597, Textile World
330 W. 42 St., New York 36, N. Y.

New Advertisements

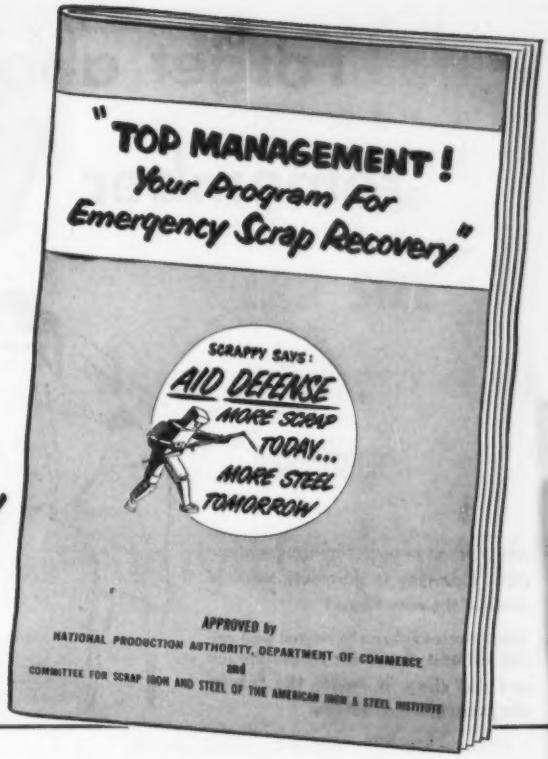
received by November 14th will appear in the December issue, subject to space limitations.

Classified Advertising Division

Textile World
330 West 42nd St., New York 36, N. Y.

What YOU can do... Must do

to ease the critical iron and steel scrap problem


"TOP MANAGEMENT! Your Program For Emergency Scrap Recovery"
SCRAPPY SAYS:
AID DEFENSE
MORE SCRAP TODAY...
MORE STEEL TOMORROW
APPROVED by
NATIONAL PRODUCTION AUTHORITY, DEPARTMENT OF COMMERCE
and
COMMITTEE FOR SCRAP IRON AND STEEL OF THE AMERICAN IRON & STEEL INSTITUTE

It's a problem calling for the assistance of every thoughtful business man—now.

Unless the steel mills get more scrap . . . furnaces may have to be shut down.

Shut down—at a time when our armed forces need more and more equipment . . . when civilian demands for steel are greater than ever . . . when our economy is fighting desperately against inflation!

You Can Help. Yes . . . regardless of the business you're in . . . you're in the scrap business, too.

If you're in the steel-fabricating business, you have extra *dormant* scrap to be added to your *production* scrap.

If you're in any other business, you surely have idle metal that will do you—and America—more good being fed into furnaces than cluttering up your premises.

Write for Suggestions. The booklet shown here tells how to set up a Scrap Salvage Program with least amount of effort and minimum interference with your regular operation. It tells where to look for scrap, what to do with it when you get it.

You are urged to send for the booklet now. Use the coupon.

FACTS ABOUT SCRAP SALVAGE

Steel production	1950 — 97,800,000 net tons
Estimated capacity	1952 — 119,500,000 net tons
Purchased scrap used*	1950 — 29,500,000 gross tons
Estimated purchased scrap requirement*	1952 — 36,200,000 gross tons

*All consumers

Where will the extra tonnage come from? Mostly from your *dormant* metal—obsolete machines and structures, tools, jigs, fixtures, gears, wheels, chains, track.

NON FERROUS METAL NEEDED, TOO!

A PUBLIC SERVICE PROJECT — THE ADVERTISING COUNCIL

This advertisement is a contribution, in the national interest, by

McGRAW-HILL PUBLISHING COMPANY, INC.

330 WEST 42nd STREET — NEW YORK 36, N. Y.

Advertising Council
25 W. 45th St.
New York 19, N. Y.

Please send me a copy of the free booklet: "Top Management: Your Program for Emergency Scrap Recovery"

NAME.....

COMPANY..... TITLE.....

ADDRESS.....

CITY..... ZONE..... STATE.....

Forget about static...

remember Vicara®

ZEIN FIBER

Are your customers complaining about static electricity in garments made of some of the new fibers?

Static causes fabrics to attract and collect lint and dirt. Static makes the lint and dirt cling. It makes the fabrics cling together—or to you.

But *not if there's enough "Vicara" in the blend!* "Vicara" actually dissipates static. *Gets rid of it.* This unique advantage is directly linked to the ability of "Vicara" to absorb large quantities of moisture, the important property that gives "Vicara" its built-in comfort.

The static problem is fast developing into an industry headache. Why make it *your* headache? Because there is an antidote...soft, luxurious, *anti-static* "Vicara!" Whatever the fabric, whatever the blend...remember "Vicara" is the fiber that improves the blend!

The anti-static quality is only one of the exciting extras of this new luxury fiber. There's the soft, comfortable feel that's non-irritating, non-scratching and gentle to the most sensitive skin...exceptional warmth and long, long wear...high resistance to pilling, moths and mildew.

Watch your customers welcome "Vicara" in hosiery, knit goods, suits, dresses, sport clothes, upholstery fabrics, blankets, and knitting yarns.

Vicara®

THE FIBER THAT IMPROVES THE BLEND

UNIFORMITY • BEAUTY • VERSATILITY • ECONOMY • EASE IN USE • SPINNABILITY
DYE-ABILITY • WARMTH • HANDLE, FEEL AND DRAPE • ELASTICITY • RESILIENCE
ABSORBENCY • HEAT RESISTANCE • WASHABILITY • NON-FELTING • NON-ITCHING
NO ODOR • NO KNOWN ALLERGIES • MOTH RESISTANCE • MILDEW RESISTANCE

Virginia-Carolina Chemical Corporation • FIBER DIVISION
Richmond 8, Va. • 500 Fifth Avenue, New York 36, N.Y.

Index to ADVERTISERS Keyed by PRODUCT

A HELP TO YOU. The reader will find that this unique TEXTILE WORLD index, particularly if consulted for two or more consecutive issues, affords a surprisingly complete source of information on the latest products and services available to the textile industry. Its comprehensiveness is the result of the fact that TEXTILE WORLD, having the largest circulation and highest readership of any textile-mill magazine in the world, carries the largest volume of advertising.

HOW TO USE. First, look in the table below and find the letter that designates the class of supply or service that you currently need. Then consult in the index the page numbers that are followed by that letter.

A. Air Conditioning, Air Cleaning
B. Building Construction and Maintenance, Paints, Yard Equipment, Water Supply
C. Chemicals and Dyestuffs
D. Cleaning Equipment
E. Dyeing, Finishing, and Cloth-Room Equipment and Supplies
F. Electrical Equipment—Motors, Controls, Lighting, Etc.
G. Fibers, Yarns, Mills, Finishing Companies
H. Fluid Handling.—Compressors, Pumps, Piping, Valves, Fittings
K. Instruments: Measuring, Metering, and Weighing Apparatus
L. Knitting-Mill Equipment and Supplies
M. Lubricants and Lubrication Equipment
N. Management Services—Factors, Consulting Engineers, Insurance, Personnel Facilities, Plant Sites, Etc.
O. Materials and components for Machinery and Equipment
P. Materials Handling, Packaging, and Shipping Facilities
Q. Power Generation and Transmission (see also Electrical Equipment)
R. Weaving and Warp Preparation Equipment and Supplies
T. Yarn-Production, Twisting, and Winding Equipment and Supplies

An * indicates additional data in the 1951-52 Pre-Filed Textile Catalog. This index is published as a convenience to the reader. Great care is taken to make it accurate, but Textile World assumes no responsibility for errors or omissions.

Acme Knitting Mach. & Needle Co.	313	L
*Air-Perme-Ator Mfg. Co.	292	A R
Akron Spool & Mfg. Co.	314	R
Aldon Spinning Mills	313	G
Alemite Div., Stewart-Warner Corp.	170	M
*Allis-Chalmers Mfg. Co.	20, 48-49	F Q
American Air Filter Co., Inc.	215	A
American Bemberg Corp.	229	G
American Blower Corp.	70	A
American Crayon Co.	313	E L R
American & Efird Mills, Inc.	320	G
*American Lava Corp.	197	L RT
American Lumber & Treating Co.	238	B
American Metal Spinning & Stamping Co.	318	E
*American Moistening Co.	52	A
*American Monorail Co.	96	P
American Numbering Mach. Co.	230	E L R
American Viscose Corp. (Yarns)	291	G
American Viscose Corp. (Tex. Chem. Div.)	191	C
Antara Chemicals Div., General Dyestuff Corp.	29	C
*Armstrong Cork Co.	58-59	T
*Arnold, Hoffman & Co.	53	C T
*Atkinson, Haserick & Co.	21 to 25	T
Atlantic Rayon Corp.	272	G
Atlantic Steel Co.	258	O
Atlas Electric Devices Co.	298	K
*Bahan Textile Machy. Co., Inc.	78	R
*Bahnson Co.	162	A R
*Barber Colman Co., Textile Div.	301	R
Barnes Textile Associates, Inc.	302	N R
Barson Mfg. Co., Inc.	312	D P RT
Bausch & Lomb Optical Co.	253, 266	N
*Becco Sales Corp.	195	C P
Bemis Bro. Bag Co.	226	P
Benjamin Electric Mfg. Co.	181	F
*Berkworth Chemical Co.	281	C
Boger & Crawford	211	G
*Booth Co., Benjamin	183	T
Borne, Scrymser Co.	156	C
*Brinton Co., H.	154	L
Bristol Co., The	233	K
Brush Development Co.	47	K
Bryant Chemical Corp.	166	C
*Buffalo Forge Co.	80	A
*Bullard Clark Co., E. H., Jacobs Northern Div.	177	R
*Butterworth & Sons Co., H. W.	148	E

THE STARCH

USED IN A

WELL BALANCED

WARP SIZE

REFLECTS THE INTEGRITY OF THE

PRODUCER

CLINTON CORN STARCH

HAS THE QUALITY WHICH MAKES IT

A SOUND BASIC INGREDIENT

FOR

BETTER SIZING

AND

WEAVING

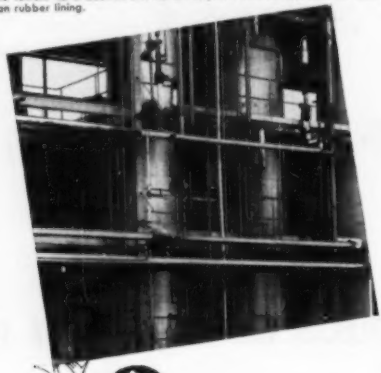
CLINTON

CLINTON FOODS INC

CLINTON IOWA

For more information, write direct or use Reader Service post card. 333

Saran rubber at work—saran rubber is used as a membrane under one course of chemical brick in these ethyl benzene reactors. The reactors handle ⅓ ethyl benzene, ⅓ higher benzenes, ⅓ benzene and .3% hydrochloric acid, and operate at a temperature of 110° C. Although this exceeds the temperature recommended for saran rubber, the towers have been in service three years without appreciable change in the saran rubber lining.



BOOST EQUIPMENT LIFE!

use

SARAN

RUBBER TANK LINING!

Saran rubber combines the physical properties of rubber with the chemical resistance of saran. The resulting high degree of chemical and abrasive resistance makes saran rubber an outstanding lining where resistance to grease, many solvents, acids and other chemicals is indicated.

Industries handling, storing or transporting corrosives find that saran rubber tank lining helps achieve lower operating costs and increase the life expectancy of costly equipment. Saran rubber is easy to apply; experienced tank lining applicators are located throughout the country. For further information contact your nearest Saran Lined Pipe Company office.

for tank cars
storage tanks
tank trailers
processing tanks
production tanks

RELATED PRODUCTS

Saran rubber molded parts—stoppers, diaphragms, various-sized moldings for valves, instruments, etc.

Saran lined steel pipe—corrosion-resistant pipe that gives long-term operation with low maintenance costs.

Write to the Distributor:

SARAN LINED PIPE COMPANY

2415 BURDETTE AVENUE • FERNDALE, MICHIGAN

Offices in: New York • Boston • Pittsburgh • Tulsa • Philadelphia
Chicago • Portland • Indianapolis • San Francisco • Houston • Denver
Los Angeles • Seattle • Cleveland • Charleston, S. C. • Toronto • Montreal

Saran Lined Pipe Company
2415 Burdette Avenue
Ferndale, Michigan

Please send me your catalog on Saran Rubber Tank Lining and Saran Rubber Molding Stocks.

Name _____ Title _____

Company _____

Address _____

City _____ State _____

SR-510-A

SARAN RUBBER

DOW

product

*Caldwell Co., W. E.	316	B E
Carbide & Carbon Chemicals Co., Textile Fibers Dept., a div. of Union Carbide & Carbon Corp.	219	G
Carborundum Co., The	42	R
Carpenter Steel Co., Alloy Tube Div.	88	O
*Carter Traveler Co., Div. of Carter Inc., A. B.	336	T
Celanese Corp. of America, Chemical Div.	257	C
Yarn Div.	225	G
Cellucord Corp., The	13	G
Century Electric Co.	92	F
Ciba Co.	221, 222	C
Cities Service Oil Co.	207	M
Clark Mfg. Co.	210	H
Cleveland Worm & Gear Co., The	57	Q
Clinton Foods Inc.	333	C
Clipper Belt Lacer Co.	309	Q
C-O-Two Fire Equipment Co.	259	B
*Cole Mfg. Co., R. D.	268	B E
*Coleman Co., Inc.	308	E
Colgate-Palmolive-Peet Co.	12	C
Columbia-Southern Chem. Corp.	33	C
Commercial Factors Corp.	2nd Cover	N
*Continental-Diamond Fibre Co.	282	T
*Cook-P & N Machine Co., Inc.	168	E
*Crane Co.	94	H
*Crane Mfg. Co.	276	L
*Crompton & Knowles Loom Wks.	44	R
Crucible Steel Co.	55	O
Curlator Corp., Textile Div.	245	T
Cutler-Hammer, Inc.	65	F
Dana Warp Mills	313	G
Daniels, Inc., C. R.	264	P
*Darnell Corp., Ltd.	254	P
*Dary Ring Traveler Co.	280	T
*Davis & Furber Machine Co.	32	T
Dexter Chemical Co.	278	C
*Dinsmore Mfg. Co.	303	E
Dixie Leather Corp.	81	Q
Dixon Lubricating Saddle Co.	234	T
Dodge Mfg. Corp.	100	Q
*Dommerich & Co., Inc., L. F.	36	N
Dow Chemical Co., Saran Lined Pipe Co.	334	H
Dow Corning Corp.	285, 286	C
*Draper Corporation	1, 179	HT
Drying & Heating Equipment Co., Inc.	310	E
*du Pont de Nemours & Co., Dyestuff Div.	103	C
Electrochemical Dept.	271	C N
Plastics Dept.	91	O
*Durant Mfg. Co.	256	K
Edroy Products Co.	306	N
Erick-Gross Corp.	230	I
Eriez Mfg. Co.	247	T
Ex-Cell-O Corp.	93	T
Fairbanks, Morse & Co.	261	K
Falls Yarn Mills	278	G
*Fidelity Machine Co.	276	T
*Finnell System, Inc.	26	D
Fiske Bros. Refining Co., Lubriplate Div.	214	M
*Fletcher Works	277	R
*Foster Machine Co.	90	T
Foxboro Co., The	288	K
Franklin Process Co.	89	G
Fuller Brush Co.	216	T
Gair Co., Inc., Robt.	51	P
Gates Rubber Co.	14	R
General Chemical Div., Allied Chem. & Dye Corp.	193	C
*General Electric Co.	87, 98-99	F Q
Glasco Equipment Corp.	232	E
Goodyear Tire & Rubber Co.	9	H
Graton & Knight Co.	81	Q
Gulf Oil Corp.—Gulf Refining Co.	43	M
Hardaker Ltd., John T.	316	N
Hardwood Mfg. Co., The	309	R
*Harwood & Sons, Geo. S.	278	T
*Haskell-Dawes Mach. Co., Inc.	270	T
*Hayes Industries, Inc.	64	R
*Heim Co.	220	R
Heineman Corp., O., Div. of Aetna Industrial Corp.	308	G
*Herr Mfg. Co.	249	T
Hinde & Dauch Paper Co.	79	P
Holt Hardwood Co.	311	B
*Howard Bros. Mfg. Co.	56	T
Hubinger Co., The	266	C
Hunt Loom & Mach. Wks., Inc.	46	R
*Hunter Machine Co., Jas.	83	E
*Huyck & Sons, F. C.	302	E
Hyatt Bearings Div., General Motors Corp.	231	O Q
Industrial Brush Co.	228	E
Industrie-Werke Karlsruhe	335	E
Ingolstadt	39	T
International Salt Co., Inc.	164	E
*Ives Co., L. T.	315	L
Jenkins Bros.	61	H
*Jiffy Textile Marker Co.	320	E L R

Kalman Floor Co., Inc.	272	B
Keever Starch Co.	160	C
*Kenyon & Son, D. R.	317	E
Kidde & Co., Inc., W., Fire Extinguishers	269	B
Kidde & Co., Inc., W., Tension Controls	287	T
*Kidde Mfg. Co., Inc.	251	L
Kold-Hold Mfg. Co.	206	E O
Lador, S. A.	312	L
*Lambeth Rope Corp.	313	RT
*Lane & Bros., Inc., W. T.	317	P
*Laurel Soap Mfg. Co., Inc.	268	C
*Leighton Machine Co.	279	L
Libbey-Owens-Ford Glass Co., Fiber-Glass Div.	235	G
Linde Air Products Co., a div. of Union Carbide & Carbon Corp.	223	L RT
*Link-Belt Co.	7, 69	Q
*Lockwood Greene Engineers, Inc.	16	N
*Loper Co., Ralph E.	320	N
*Lowell Shuttle Co.	242	R
Lubriplate Div., Fiske Bros. Refining Co.	214	M
Lunkenheimer Co.	105	H
Manhattan Rubber Div.	62	Q
Manheim Mfg. & Belting Co.	102	Q
Maple Flooring Mfrs. Assn.	250	B
Marquette Metal Products Co.	217	T
*Mathieson Chemical Corp.	2	C
M-B Products Co.	310	H
*McBride Co., Inc., Ed. J.	218	R
*McCaskie, Inc., Wm.	260	R
McGraw-Hill Book Co., Inc.	289	N
*Meese, Inc.	306	P
Mellor, Bromley & Co., Ltd.	246	L
*Merrow Machine Co.	315	E
Michigan Oven Co.	297	E
Micro Switch Div.	75	F
Miller Motor Co.	95	E
*Milton Machine Works, Inc.	262	R
Minneapolis-Honeywell Reg. Co., Industrial Div.	84-85	K
Micro Switch Div.	75	F
Minnesota Mining & Mfg. Co.	28	F R
Mobilift Corp.	208	P
Moisture Register Co.	270	K
Montgomery Bros.	296	C
*Monsanto Chemical Co., Textile Chem. Dept.	27	C
Morton Machine Works	311	T
*Nash Co., J. M.	307	D RT
National Aniline Div., Allied Chem. & Dye Corp.	35	C
N. Y. & N. J. Lubricant Co.	264	M
Nopco Chemical Co.	38	C
Oakite Products, Inc.	303	C
*Onyx Oil & Chemical Co.	199	C
Pabst Sales Co.	300	C
Page Fence Association	307	B
Parks-Cramer Co.	212	A D
Penick & Ford Co., Ltd.	299	C
*Perkins & Sons Inc., B. F.	68	E
Philadelphia Quarts Co.	262	C
Pittsburgh Coke & Chem. Co.	213	C
*Pittsburgh Corning Corp., Foamglas	293	B
Pittsburgh Plate Glass Co., Fiber Glass Div.	40-41	G
*Platt Bros. (Sales) Ltd.	22-23	T
Powell Co., Wm.	82	H
Precision Gear & Machine Co.	304	Q T
*Prince, Smith & Stells	24-25	T
*Proctor & Schwartz, Inc.	66-67	T
Products Sales, Inc.	74	T
*Pure Oil Co., The	15	M
Radio Shack Corp.	274	F
Raybestos-Manhattan, Inc., Manhattan Rubber Div.	62	Q
Red Ray Mfg. Co.	304	E
Reeves Pulley Co.	73	Q T
Regnery Corp., F. L.	224	T
*Reiner Inc., Robt.	227	V R
*Richards-Wilcox Mfg. Co.	86	P
Richmond Oil, Soap & Chem. Co.	272	C
*Riggs & Lombard, Inc.	54	E
*Rohm & Haas Co.	185	C
Rome Soap Mfg. Co.	317	C
*Roy & Son Co., B. S.	313	T
Ryerson & Son Inc., J. T.	260	O
*Saco-Lowell Shops	6, 8	T
Sandox Chemical Wks.	17, 18	C
Saran Lined Pipe Co.	334	H
*Sargent's Sons Corp., C. G.	303	E T
Schenley Distributors, Inc.	104	N
Schlafhorst & Co., W.	11	RT
Schlumberger & Cie.	297	T
Seaboard Airline R.R.	283	N
Sill Industries	209	E
*Sipp-Eastwood Corp.	281	R
Sirrine Co., J. E.	3rd Cover	N

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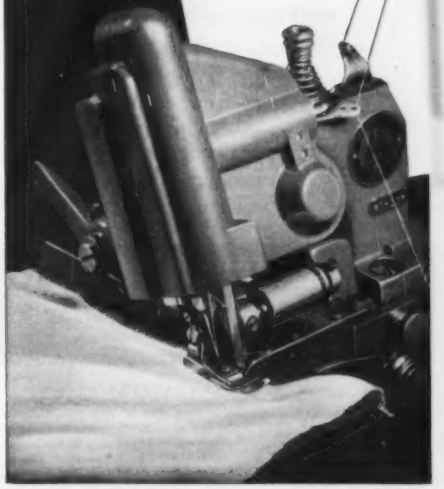

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SKF Industries, Inc.	237	....O..Q....
*Smith, Drum & Co.	202	....E.....
Snap-On Tools Corp.	244	...B.....H.....
Snowiss Fur Co., B.	317	.....T
Societe Alsacienne De Constructions Mecaniques	21	.....T
*Sonoco Products Co.	173	.....T
*Southern Snuttles Div., Steel Heddle Mfg. Co. 284,	285	.....R..
Square D Co.	201	.....F.....
*Standard Pressed Steel Co. 305,	318	.....O.....
Star Woolen Co.	10	.....G.....N.....
Steelcote Mfg. Co.	299	...B.....
*Steel Heddle Mfg. Co. 284,	285	.....R..
*Stop-Motion Devices Corp.	305	.....L.....
Sun Oil Company	146	.....C.....
Superior Combustion Industries, Inc.	305	.....Q.....
*Supreme Knitting Mach. Co., Inc.	243	.....L.....
*Synthane Corp.	189	.....T
Taylor Instrument Cos.	295	.....K.....
Taylor-Stiles & Co.	274	.....T
Tennant Co., G. H.	248	...B.....
Texas Co., The 4th Cover		.....M.....
Textile Banking Co.	158	.....N.....
*Textile Machine Works. 106,	175	.....L.....
Tide Water Assoc. Oil Co.	60	.....M.....
Toledo Scale Co.	241	.....K.....
*Tompkins Bros. Co.	236	.....L.....
Torrington Co., The (Needles)	71	.....L.....
Torrington Co., The (Bearings)	72	.....O..Q....
Turbo Machine Co.	5	.....L.....
*Twin Disc Clutch Co.	252	.....Q.....
*US Bobbin & Shuttle Co.	101	.....R..
U. S. Rubber Co., Mechanical Goods Div.	34	.....T
Textile Div.	294	.....G.....
U. S. Stoneware Co.	309	...B.....N.....
U. S. Testing Co.	278	.....N.....
Union Carbide & Carbon Corp., Linde Air Products Co.	223	.....L.....RT
Unionmatex, Textilmaschinen-Union, G.M.B.H.	37	.....E.....RT
*Universal Winding Co.	186	.....T
Uster Corp.	50	.....R..
Utica Novelty & Mill Spec. Co.	314	.....E.....
*Van Vlaanderen Machine Co.	152	.....E.....
*Veeder-Root, Inc.	150	.....K.....
Virginia-Carolina Chemical Corp., Fiber Div.	332	.....G.....
WAK Industries	318	.....K.....
*Walton Laboratories, Inc.	205	A.....
*Warner & Swasey Co.	97	.....T
*Wayne Mfg. Co.	276	.....T
Western Felt Works	19	.....L.....RT
Westinghouse Electric Corp., Lamp Div.	273	.....F.....
Micarta Div.	255	.....O.....
Motors & Controls 76-77		.....F.....
Sturtevant Div.	263	A.....
Textile Industry 30-31		.....Q.....
Weston Electrical Inst. Corp.	267	.....K.....T
*Whitin Machine Wks.	63	.....T
Wildman Mfg. Co.	275	.....L.....
Wood's Sons Co., T. B.	307	.....Q.....
Worthington Corp., Multi-V-Drives	316	.....Q.....
Pumps & Compressors	317	.....H.....
Yale & Towne Mfg. Co.	45	.....P.....

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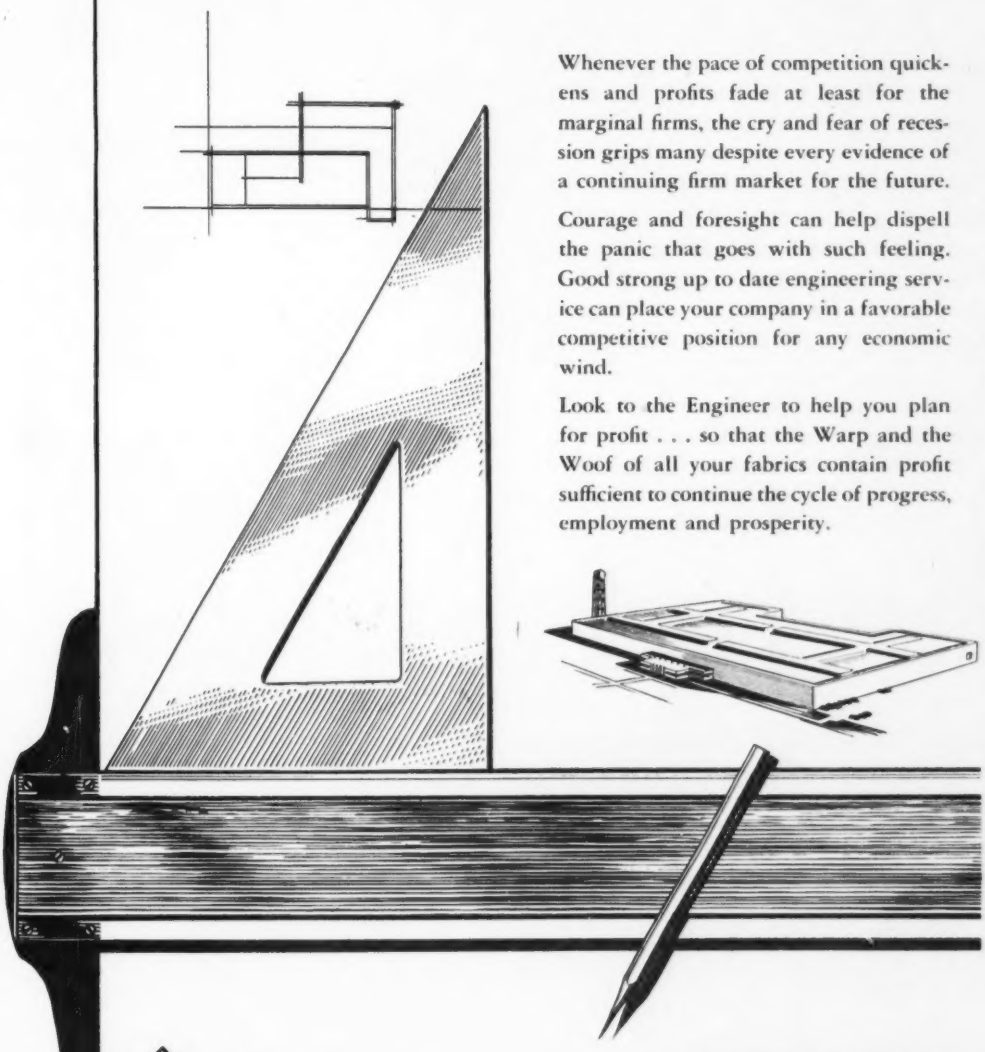
BLUEPRINT FOR PROFIT



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